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CRUISING ON THE CONNECTICUT RIVER.

# YACHTING

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# What the Motor Boat Shows Mean to Boat Users

THE MODERN 55-FOOT POWER CRUISER, CAPABLE OF GOING ANYWHERE, IS A GREAT CONTRAST TO THE CRUISER OF THE SAME SIZE OF A FEW YEARS AGO.

INDICATIVE OF THE GROWTH OF A GREAT INDUSTRY THAT HAS REVOLUTIONIZED THE SPORT OF BOATING. SAFETY, COMFORT AND SPEED ARE THE DEVELOPMENTS OF THE LAST EIGHT YEARS.

IN browsing around at one of the big motor boat shows the average man who is drawn there by the love of boats and of the water, finds it hard to realize as he looks over the highly finished products of boat and engine manufacturers, that only a little over a decade ago there were neither boats nor engines of these types and that the only power used for marine purposes was steam and wind. Indeed, he does not have to go back as far as that to recall with what mirth and derision the first power boats, *per se*, were greeted. They were, in fact, worthy of the skepticism which their appearance called forth; but nevertheless they were the progenitors of the present craft, certain types of which are capable of standing the roughest water, and whose engines are able to make the trans-Atlantic passage without a stop.

The forerunner of the present internal combustion engine was the alco-vapor or the "only naphtha launch," which used alcohol or naphtha for both fuel and power, but these were not much in use except as tenders for large yachts or for yacht club station launches. One of the earliest gas engines on the market was the Sintz, called after the inventor of that name, and as is natural with a new product it was excessively heavy for the power, and unreliable under any adverse conditions, but from that beginning has grown up a great industry that has brought both power and craft to a high state of perfection, and that has done for the marine field what the automobile industry has brought about on land.

Other engine designers followed along in the footsteps of these pioneers, making improvements, bringing out new designs, upsetting old theories and evolving new ones, and all the time going ahead for the benefit of those who followed the sea for pleasure or for a livelihood; but it was not until concerted action came and manufacturers had an opportunity to foregather at the annual motor boat shows that the boat user began to reap the reward of competition and of experience.

In the early days of the development, more emphasis was laid on the engine than on the boat, which was to be expected, seeing that the power was being developed by engine manufacturers, and most any type of hull that would float the machinery was considered good enough. Even when boats were first being designed to meet the special requirements of new power, but little attempt was made to produce a seaworthy model or one that conformed to the preconceived standards of beauty and we saw such abortions as the long, narrow, straight sheer boat with top-heavy glass cabin house and big open cockpits that could not cross Long Island Sound with any degree of safety. Lines were used that have since been discarded as unsuitable. The old fan-tail stern gave way to the long flat torpedo stern to give bearing surfaces aft, which, while all right in speed boats were often applied to off-shore cruisers. Then came the first compromise or canoe stern, which has been modified until it is now a shapely and efficient type, and later the Normand V or straight transom stern was used. Forward sections that were formerly

PHARAMOND, A TYPE OF GASOLENE CRUISER WITH THE OLD TORPEDO STERN, BUILT IN 1902.

straight have been made with good flare to throw off the water, and midship sections have been filled out to give enough displacement to make a seaworthy craft, until now a run to Havana or Bermuda is not considered an unusual undertaking for a boat over 40 feet long.

It is to the naval architect that we are indebted for this metamorphosis in power craft. And great as has been the change in cruisers it has also been marked in speed boats, though the advent of the hydroplane principle has revolutionized this type of boat within the last two years. As an example of what the new boats and engines can do we have almost daily evidence in the numerous long distance races and cruises, and in the fact that the same boat that is seen on the Maine or Nova Scotia coast in summer is seen the next winter among the Florida Keys or along the coast of Cuba; while in a special endurance cruise of over 600 miles in open water last summer, four boats finished without repairs of any kind to their motors, or without even changing an adjustment of their engines. Even a little 25-foot boat (an auxiliary, it is true) crossed the Atlantic using her engine for over 900 miles of the distance.

In speed boats we have seen a jump from 18 to 20 miles an hour to 46 miles, and the prediction is freely made by boat designers and engine builders that next summer 50 miles will be surely seen. Fast semi-speed boats are now being used for runabout purposes that are not only reliable, but with a speed far in excess of the racing boats of a few years ago. Yet they are comfortably laid out and show an entire absence of the oil and grease that seemed to be inseparable from every speed boat of a few years ago.

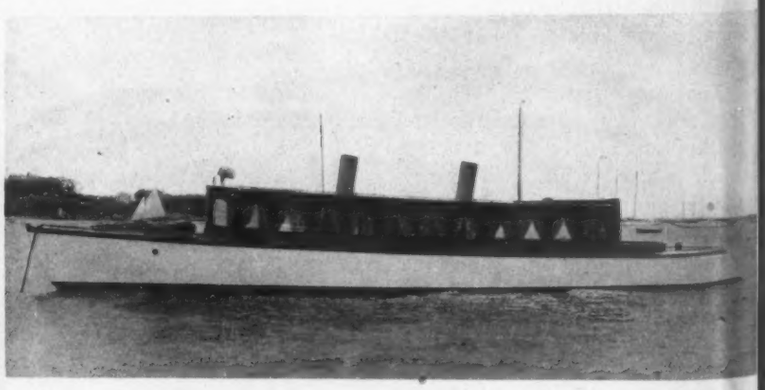
Now, the growth and development of the industry is responsible for this state of affairs and the motor boat shows are the tangible evidence to the boat user of this development. Not only this, but the boat shows have been the common meeting ground between boat and engine builder, naval designer and the boat user, where each can gather ideas from the experience of the other, that makes for the better combined development of boat, engine and accessories.

At the start all but a few of the engine builders had small machine shops not capable of turning out work on a large scale or with proper machinery for manufacturing their product advantageously, but as in the automobile industry, large plants and better organization have made possible not only a better machine, but the lower price which prevails today.

As government inspection became more rigid, a more dependable navigating equipment was provided and numerous safety devices were added, so that from an air whistle to a life preserver the equipment was made adequate for the purposes for which it was designed. On the side of comfort there came the easy chair for cockpit or deck, instead of the hard transom seat; spray hoods and automobile tops for open boats in place of the old straight canopy top, and improved galley equipment and the innumerable little articles that make life afloat comfortable and pleasant. Each year sees improvement in the outfit as well as in the boat and engine.

So rapid has been this change that the average man fails to realize how much has been done in a very few years, and how much the coming of this type of power and craft has done to open the sport of boating to those to whom it would have been impossible before. The great inland lakes and water courses, where sailing was impossible, now float thousands of pleasure craft whose owners did not know what it was to handle a boat because the opportunity had never been presented to them before. This applies to commercial craft as well as to those used for pleasure, and there is no keener or more interested spectator at any of the numerous motor boat shows than the lobsterman of the Maine coast, the pearl fisherman of the Illinois River or any of the men who earn a living from their homely but useful little craft.

A TYPE OF OPEN LAUNCH USED IN 1903.



THE GLASS CABIN CRUISER AS IT WAS BUILT IN 1904.

# The First Cruise of the Mary Gee

IN WHICH JAKE, BILL AND THE SKIPPER GO TO SEA IN THEIR NEWLY ACQUIRED BUNCH OF JUNK AND HAVE THEIR OWN TROUBLES WITH A BALKY ENGINE.

By WARREN H. MILLER.

JAKE!—Oh, Jake!—Jake and be damned!—Get a move on you."

"Yes, I'm coming, Skipper," bellowed Jake breathlessly, lumbering down the gangplank under a mountain of miscellaneous supplies.

"Well, all aboard, for Cat's sake! This engine's running for the first time in a thousand years; let's get away before it finds it out."

Jake staggered down the gang-plank and onto the float. It was an old one, in a crying state of disrepair, and its half-submerged upper surface had grown a beard of green sea-moss. Jake planted an incautious foot on its slimy planks and the next moment his pedals started soaring in hyperbolic outcurves. He made a supreme effort to regain control, vol-planed about four feet on nothing heavier than air, and executed a prodigious summersault, whilst slickers, baskets, jugs and gasolene cans radiated from him tangentially in all directions.

"Wow! I'm a pinwheel!" he gasped as the shower of perishables came down with a manifold splash.

"Boathook, James!" chirped the Skipper, looking up unemotionally from the engine, "save the lunch!"

Bill scapped skillfully at it and derricked out a dripping basket. "Ain't nothin' in it but bottles, if Jake bought it, believe me," peeped the second fat man, swinging it aboard. "Here,—ketch it!"

"Now the gas works,—glad they didn't mix! Hand—somely now!" directed the Skipper, as the five-gallon can of *éssence* was hauled aboard.

"Say! Don't I get any of that boat hook?" implored Jake, trying for the fourth time to rise, but slipping down forlornly on both knees and elbows. "Somebody help me off of this squish."

"Sure!" responded Bill, eagerly catching at a suspender strap and hauling away.

"No-no-NO!" screamed Jake, "*Not* that way,—Hell's *delight*—you'll have me *over*board!" He scrabbled frantically at the slippery planks of the float, but too late; Bill's pull was just the impetus required to start him over the edge and the next minute he disappeared under the water with a mighty commotion of suds.

"Glub!" remarked the Skipper. "You'd better go out over the stern, Bill, when he comes up again.—Here!—Keep off, there!" he yelled, fending off the splashing Jake as he grabbed desperately for the gunwale. "This engine's nervous and irritable, young man, and don't you splurge any wetness over our leaky spark-plugs and rheumatic timer. Avast there! You for a seat a-top the rudder."

"Oh, let me at him—that grinning lunatic with the boat-hook!" panted Jake, glaring up at the sheepish Bill. "Let me plant these feelers just once on that young man's spud box!"

"Not while I still retain proficiency in the use of the Stillson wrench," quoth the Skipper warmly. "You sit out there on the rudder. Count one hundred, soft and low, and then come aboard, as mealy-mouthed as Moses."

"Here, old scout—I'm awful sorry," said Bill, contritely handing over the jug. "Take all you need—I won't look. Be nice, now."

"And don't you shake any water off yourself or do anything else to give this engine paralysis," added the Skipper as Jake clambered over the stern transom. "Cast her loose Bill, it's time we were off."

The Mary Gee putter-putted away, developing just about enough speed to race a house-boat 15 minutes before passing it, while the Skipper eyed the mill sternly, oil-can in hand, daring it to loaf a single instant on the job.

"At this rate we'll overtake the pyramid of Cheops along about the middle of next winter," he snorted disdainfully, "and we'll get to Sandy Point in about two cycles of geological time."

"W-what's that about two cycles?" chattered Jake from his perch astern. "This gin-mill's n-no t-two cycle."

"Yes she is,—that's her time allowance," retorted the Skipper. "You get into your bathing suit and stop shivering. I have use for everything you have on," he added, regarding Jake's rotund proportions thoughtfully.

Jake looked warily at the receding shore, peered around the horizon for possible female sailorettes, and then crawled carefully into the vicinity of the engine and divested himself of his clinging garments. The Skipper picked up a limp pair of overalls and held them to the breeze. Vast and ample they bellied out in the wind and the nether ends flicked Bill playfully across a clean, starched collar.

"Heck!" ejaculated that worthy. "Take them damb things 'n' heav'm t' th' fishes, ye consarned human microbe!"

"On the contrary, we have here a mainsail that the Vikings might be proud of, with this wind astern," quoth the Skipper, judgematically. "Give me that oar and that boat hook for a yard-arm and we'll move this crate so fast she'll have apoplexy. Got any more wardrobe, Jake?"

He grabbed up a huge pale blue undershirt, and, as the wind took it, it nearly upset the boat. "Fine business for a mizzen—Here, Bill, you scrutineer this cast-iron pint-pot, sold for and faintly resembling an engine, while I bend on a couple of sails."

The Skipper ferreted out a hank of marlin, commandeered the boat hook and lashed it to an oar for a yard. Next he bent on the elephantine overalls and then stepped the oar in a former mast step in the bow thwart.

"Starboard leg's the tack and port's the sheet, d'ye understand," he declared, tying the inner edges of the legs together and fastening a bit of manila on each outer corner. "Belay 'em,—handsomely now—you deboshed landlubbers."

"They's no denyin' the square yards in them pants," admitted Bill admiringly as the sail took hold and an actual buffeting of waves under the bows began to be heard forward.

"She'll stand more," averred the Skipper. "Give me that fish-rod of Jake's, just as it is in the case. It'll make a sprack mizzen yard, and if we don't have another sail on her in a wiggle-and-a-half, stew me for a soused mackerel!" He got busy industriously with the marlin and presently the pale blue undershirt unfurled to the breeze and its arms were triced aft.

"Now, you get back on the rudder post and tend it, Jake," ordered the Skipper with just the ghost of a grin. "I dunno but

what we might get a jib out of it if we undress him some more, what d'ye say, Bill?"

The Mary Gee actually felt a bone in her teeth, in place of that near-motion which was the best that the engine could get out of her, and with her sky-blue rigging strumming in the breeze and the continuous put-putter-*pip*;-putty-put-a-*put* of the engine, she bowled along toward Sandy Point,—the most remarkable yawl rig in the history of the Pohank Yacht Club.

"'Tis no boat,—'tis a monster!" groaned the Skipper, hoping that no spyglass was trained on them. "A most credulous, low-browed, mis-begotten, willy-witted, elephant-footed monster, tied together with bicycle tape and pinned up with safety pins!"

"She's a catfish!" gurgled Jake delightedly. "Why, we're actually *spinning!* Let me run her, Skip."

"You!" ejaculated the Skipper scornfully. "You don't know enough about machinery to wind a cuckoo clock! You tend that shirt. Come up a little on her tack and ease off a bit on the sheet, damn it. What's the matter with you anyway!"

"Wow! After that we'll have a nose-warmer all around," remarked Bill, solemnly, "an' then all hands to mess." They investigated Jake's basket as the Mary Gee skated along. There was nothing in it that water could hurt. Lobster; lettuce, salad oil; a dozen hard-boiled eggs; a tin of biscuits, and six bottles of sozzle exemplified Jake's ideas on how to run the commissary department.

"'TIS NO BOAT, 'TIS A MONSTER."

An hour later, three full souls were contemplating the briny in a philosophic and reflective mood, having put Sandy Point well abeam and being now headed out into the open ocean. It had been a hearty lunch, and it had the undeniable advantage that no one could have come through with it without feeling ineffably pleased with himself, the world, and the weather; and one could even look admiringly on the bilious and cantankerous little engine.

"What'd ye put in the gasolene tank, Jake, a quart of cocktails?" mumbled the Skipper thickly through his second bottle. "Never knew thish mule to keep so long at it as she has today."

"Nosher," grinned Jake amiably, "she hash nosshin' but good gasolene;—f-five gallings of it, b'lieve me."

The three sprawled comfortably in the bottom of the boat and regarded the engine amiably. It had already sneezed violently once or twice, but with all that canvas overhead drawing like a house-afire, what cared they? The Skipper had taken off his shoes and was steering the boat with one toe cocked up on the wheel. The engine snorted once again, reversed, thought better of it, went ahead a few feeble revolutions, rocked back and forth, and came to rest.

The Skipper regarded it pleasedly. Everything pleased him. Hadn't he two bottles?

"It'sh jes' folded it'sh tired cranks 'n' gone into eternal sleep which'll need doctoring with an axe," he smiled. "Shails was invented before mules was ever thought of, anyhow," he observed, easing out an imperceptible luff in the "mainsail." Soused or sober, the Skipper could sail a boat;—anything that had wings, from a full rigged ship to a canoe. He looked around for approval but got only snores, for the fat men had folded their fins inboard and were going to have their snooze if they drifted to Europe, or whether motors moted or sails flapped. Hadn't they an inch of tight plank between them and the wet?

"Yes; tight,—that's it," mused the Skipper. "Three drunks mending a balky gas-mill. Wonder where we'd better begin?"

"Tickle her thoraxsh with a feazzher;—thash the way the Romansh used to do," advised Jake, evidently confusing the motor's case with his own.

The two fat men rolled upright and crept deviously toward the engine. "N-no, don't do thash, J-Jake," argued Bill restraining him. "Hadn't we beasher first m-manicure her vibrator?"

Jake giggled approvingly, and after staring fixedly at the spark coil for a minute, gave it a prod with a stubby fore-finger. It gave *him* a shock, whereat he tumbled into Bill's arms for consolation.

"L'kout! 'Sh got a stingaree! Bit me, just then," he wept, glaring fiercely but respectfully at the innocent spark coil.

They looked the works over carefully but didn't know which end to begin at. The intake bonnet looked likely, but it was fool-proof, for you had to stand on your head to reach it; and, after a few futile efforts, Jake lost the wrench in the bilge.

"*I* tell you what le'sh do," burbled Bill as they again crept slyly on the engine, giving the spark coil, however, a wide berth. "Le'sh s t a m p e d e her. Shcare her into f-fits sho she'll run away! You b-blow the f-foghorn,—all-of-a-sudden,—down into the gas'lene tank, 'n' I'll lam the f-flywheel a kick."

They started to put this bright plan into effect while the Skipper regarded them benignly. Hadn't he one,—two,—four,—he'd forgotten how many bottles,—but anyway it was some altogether pleasant number of the celestial wine-skins. He lay in the cockpit, steering the Mary Gee with a toe up on the wheel. She would only sail in one direction and that was towards Europe, but he was just as pleased. This earth was in a fine place, and the sea the best part of it,—and the rest didn't matter, and what was the use of bothering over a measly little engine?

Bill possessed him of the foghorn and arrived on all fours at the stern sheets. He knelt unsteadily on the deck, standing the horn over the filling-pipe cap at about the third try. Jake got himself up, grabbed hold of the elusive flywheel and prepared to give it a vicious kick. "Are y'ready, Bill?" called Jake. "One,—two,—"

"Avast there!—Flag it!" yelled the Skipper, suddenly awak-

ing to the situation, "You two'll be overboard if you d—."

The advice was superfluous,—and late. Jake gave a mighty punt at the flywheel and left it tangentially to lunge overboard like a bale of hay, while Bill's efforts to climb up the foghorn and get his mouth over the end of it resulted in a sudden collapse which lurched him also into the drink.

The effect of this double catastrophe on the Skipper was electrical. He sprang into action, ripped down his fantastic top-hamper, and performed prodigies of valor with the oars. He brought that boat about in twice her length. But there was no need to hurry—the two fat men were as non-sinkable as so many nun-buoys. Scooping Bill aboard with the boathook applied to the various grab-holds along his meridian, was no pipe job, but in rescuing Jake, the Skipper made the mistake of yanking at him by the neck gear, and went out over Jake's head like a three-high circus performer.

"Golly, but the water's fine!" chortled the Skipper, splashing about in the delicious coolness of it. As Bill was trying to row the boat with only one oar, it was easy to board him in a seamanlike manner, and presently the three, sobered and cooled off had divided the remaining dry clothes and were seriously considering the engine again.

"This corpse needs the services of an undertaker," announced the Skipper after a prolonged investigation; "the more so as there is no gasolene in the tank. Jake, where's that can of juice you brought aboard?"

Jake fished it out, and soon the welcome *blug-glub* of a five-gallon drink of gasolene going into a dry tank, sounded in their ears.

Then the Skipper set out to do his prettiest, for the tide already had them a mile off shore. He set the carburetor carefully a quarter-turn open, put the timer ahead of center, buzzed both spark plugs with the flywheel,—and cranked the engine.

Not interested.

He tested all the stop valves, diddled the float until the carburetor dripped, switched over onto the other batteries,—and cranked the engine.

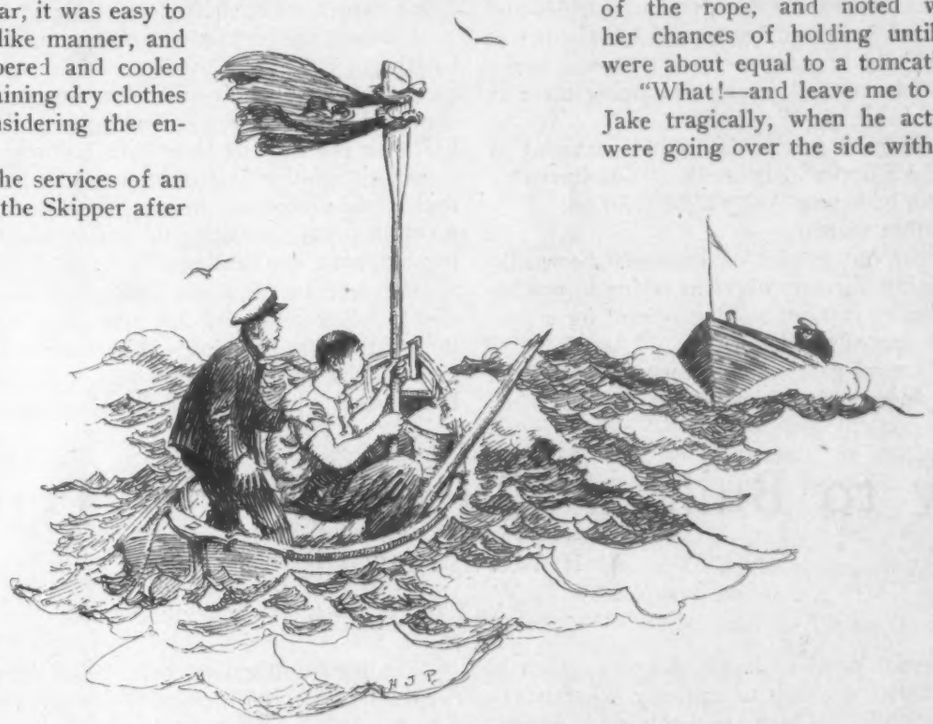
Emphatically, nothing doing.

He cussed a little in four languages, just to oil up the profanity generator, unscrewed both vibrators, advanced the timer,—and cranked the engine.

Nothing to arbitrate.

Bill and Jake stood apart and watched. This was no place for children. The Skipper added three more languages to the output of second-class profanity, opened up the carburetor spray, tweaked every wire in high-tension and low-tension circuits,—and cranked the engine.

No Irish need apply.



"A TIME TO LET BY-GONES BE BY-GONES AND RUN UP A SIGNAL FOR HELP."

"Well, of all the ding-busted, gum-swizzled, dad-ratted imitations of a coffee grinder!" he exploded wrathfully. "Now, there is no known reason why this knotty-pated embodiment of all mulish attributes shouldn't run, enthusiastically and furiously,—except—*except*,—" he repeated, getting down on his knees and touching a match to the gasolene try-cock,"—except that this alleged gasolene is *sea water!*" he shrieked as the match sniffed out. "Did you fill that can, Jake, or did the boys fill it for you at the club house?" he thundered, rising menacingly to his feet.

"I-I, t-took the first can that came handy," whimpered Jake preparing to go overboard, for the Skipper in a towering rage was not to be withstood.

"*You!*—You and your hundred-per cent. salinometer-test gasolene!" snorted the Skipper derisively. "Well; we'll have to row ashore and get some, that's all. Come on, Bill; pull up the dink. Jake, we appoint you anchor watch."

He got over the 20-pound grapnel, paid out all the scope of the rope, and noted with grim humor that her chances of holding until entirely off soundings were about equal to a tomcat's in a school of sharks.

"What!—and leave me to drift to Europe?" cried Jake tragically, when he actually realized that they were going over the side without him.

"Certainly. — You always wanted to go there; — you and your pickeled gasolene!" retorted the Skipper, hopping in the stern sheets and seizing the tiller ropes. "Give way, Bill."

"Yes,—but officer! — wait! — *Wait!* — WAIT!!" implored Jake now thoroughly panic stricken, snatching frantically at them with the boat hook.

"There's a neat sea running, and we have about two inches of free-board," remarked the Skipper, deaf to the shouts of the marooned fat man. "Do you admire the view?"

"I wish I weighed less, and the shore was a mile or so nearer, b'heck!" panted Bill, heaving away at the oars. "'Pears we're the people really in danger. I don't like them whitecaps a little bit."

"F'r the love of Mike, look at Jake!" chuckled the Skipper, glancing over his shoulder. The Mary Gee had dragged anchor out to sea just about as fast as they had rowed in and all that could be seen of her was an occasional flash of white as her hull rose above the waves, while a tiny figure ran to and fro on her, imploring high heaven for aid.

Bill and the Skipper roared with delight; but Fate was waiting for them with a stuffed club. For a few minutes later when Bill pulled hard on his starboard oar to swing out under the nose of a curling whitecap, there was a sudden snap and a *"plop"* into the sea as the oarlock disappeared forever on the water route to Davy Jones. Bill went over backward like a basket of fishnets,

losing the oar to a torrent of objurgations by the Skipper, and they shipped half a boatload of sea water.

"Bail! You gorbellied bacon-rind!" shrieked the Skipper, setting to with his hat as Bill splashed helplessly around in the bottom of the dink. The latter revolved within reach of the bailer and fell to scooping for dear life. After a masterly display of fine team work, they won out against the whitecaps and began to think of transportation again.

They had caught up some on the Mary Gee now. Jake was nowhere to be seen. Neither was the shore, except at rare intervals; but from down the coast came an insistent *putter-r-r-r-rter-rter-put-ter-putterr* that their ears told them belonged to but one boat—Acker's 70-devil Blazing Arrow. They hated Acker, and his arrogant assumptions of all expert knowledge, and his 70-cylinder speed-devil which no one was safe within three miles of, but this was a time to let by-gones be by-gones and run up a tattered shirt on the remaining oar;—which they did. Presently the noise curved their way and out of the whitecaps appeared a hurrying triangle of foam. Behind it were a pair of goggles and a speed-ridden maniac called Acker, to be rescued by whom was a fate worse than being pickled in sarcasm for a thousand years.

"What ye doin' here?" he scoffed, nearly swamping them as he came alongside. "Out for a row?"

"No; we're making biological studies for the Department of Agriculture," explained the Skipper elaborately. "You haven't a spare pint of gas about you, have you, Acker?" he went on.

"What for?" grinned that worthy.

"Why, we met a farmer out yonder—a hay-seedy, cornsilk-smoking, spruce-gum-chewing, farmer, who was trying to run his motor with sea water; so we're just out looking around for a dear old lady with a five-gallon can of gasolene—."

"Get in! Where's this rural gent? I'm director of a college for feebleminded persons and we want him," quoth Acker. They tied the dink astern and Acker pulled levers which started a riot up under the hood and slewed them about so fast that they had to hang tight to their seats to stay aboard at all.

"He's out there in that little white putter-box—if he hasn't fallen overboard again," advised the Skipper, pointing out the Mary Gee.

Acker spun over to her and in a minute was alongside. Jake lay fast asleep in the bottom of the boat, which rode peacefully at anchor.

"Thanks awfully—*Mr.* Acker," grunted the Skipper, scrambling aboard. "Now if we could trouble you for a little gas—"

"What for?" roared Acker. "I don't see any engine. Where's your engine?"

"Speak up and answer the gentleman, pudding-bags," hissed the Skipper, kicking Jake. "Where's the engine? Don't disgrace us this way."

"Full,—forty,—fathoms,—deep, our faithful,—Fido,—lies," mumbled Jake. "She's down there helping the anchor. You didn't expect me to drift clear to Europe, did you?"

It's time the curtain was drawn on this drama. How they at length got rid of the jeering, derisive and insulting Acker; how they got up that mule-mill from her nest of Atlantic seaweeds; squeezed the water out of her lungs; dried every greasy bone of her with the heat of their own bosoms; warmed the damp and rheumatic ignition system back to life, and at last chugged slowly back to the club house in a darkness thick enough to bale up with a cotton press, constitute memories which will rankle forever in the Skipper's recollections.

But woe to the Good Samaritan who can't keep his mouth shut! Acker never *had* any sense, and he let the whole thing out the next day at the club. Whereat the Skipper acquired a deep blue grouch and a thirst for revenge, which in time was sated—Lord, but it was well sated, too!—but that's another story!

# How to Build a 12-Foot Power Tender

By H. W. PATTERSON.

PART I.

THE yachtsman's eternal problem is his dinghy—which is not so surprising when we stop to consider what is required of the little "dink." There are many kinds of tenders—some bad, some fair, some good, but none perfect. The principal requirements are good carrying capacity, seaworthiness and easy towing qualities and when these are obtained in combination with lightness and good appearance, the lucky owner will cling to that dink until it falls apart.

With the introduction of power to small tenders came more trouble. Some place had to be found for the engine, tank, batteries, muffler, etc., without lessening the carrying capacity or towing qualities. If the engine is put forward she trims by the head when light or with one person aboard, who must handle the boat from a point within reach of the motor. When located aft, besides taking the best part of the boat, it gives a bad shaft angle and causes her to squat when towed. All things considered the best location for the engine is amidships, or somewhat forward of it, in boats up to 14 feet. With the rowing thwart located immediately aft of the engine the space underneath it can be used for batteries and coil, protecting them and requiring a minimum of wiring. This arrangement provides accommodation for 4 passengers in the after part of the boat without the necessity of climbing over or around the engine.

The tender described here is 12′ long, 4′ 2″ wide and 1′ 8″ deep amidships and is suitable for any light-weight engine up to 3-H.P. As a tender to a power boat I would recommend 1½ or 2-H.P., but for a sail yacht, where she is frequently called upon to tow the larger boat, a little more power will be an advantage.

Any amateur possessing the ability to build a round-bottomed boat will know what tools are necessary and how to use them, also how to figure out the lumber which will be required, from these plans; if not, he had better leave the job to a professional. Assuming that you have this knowledge, that you understand what the sheer, half breadth and body plans represent, let us begin. Before doing a tap of manual work, build the boat mentally. Study the drawings and the text to get a clear understanding of just how you will perform each operation. By doing this many little problems will be solved, which, if left until reached, may necessitate the rebuilding of some part and the waste of time and material.

### LAYING DOWN.

The first thing necessary is to enlarge to full size certain parts of the plans in order to make patterns for the stem, keel, transom, etc., and the moulds over which the boat is built.

Select some fairly smooth floor about 20′x6′. If this will

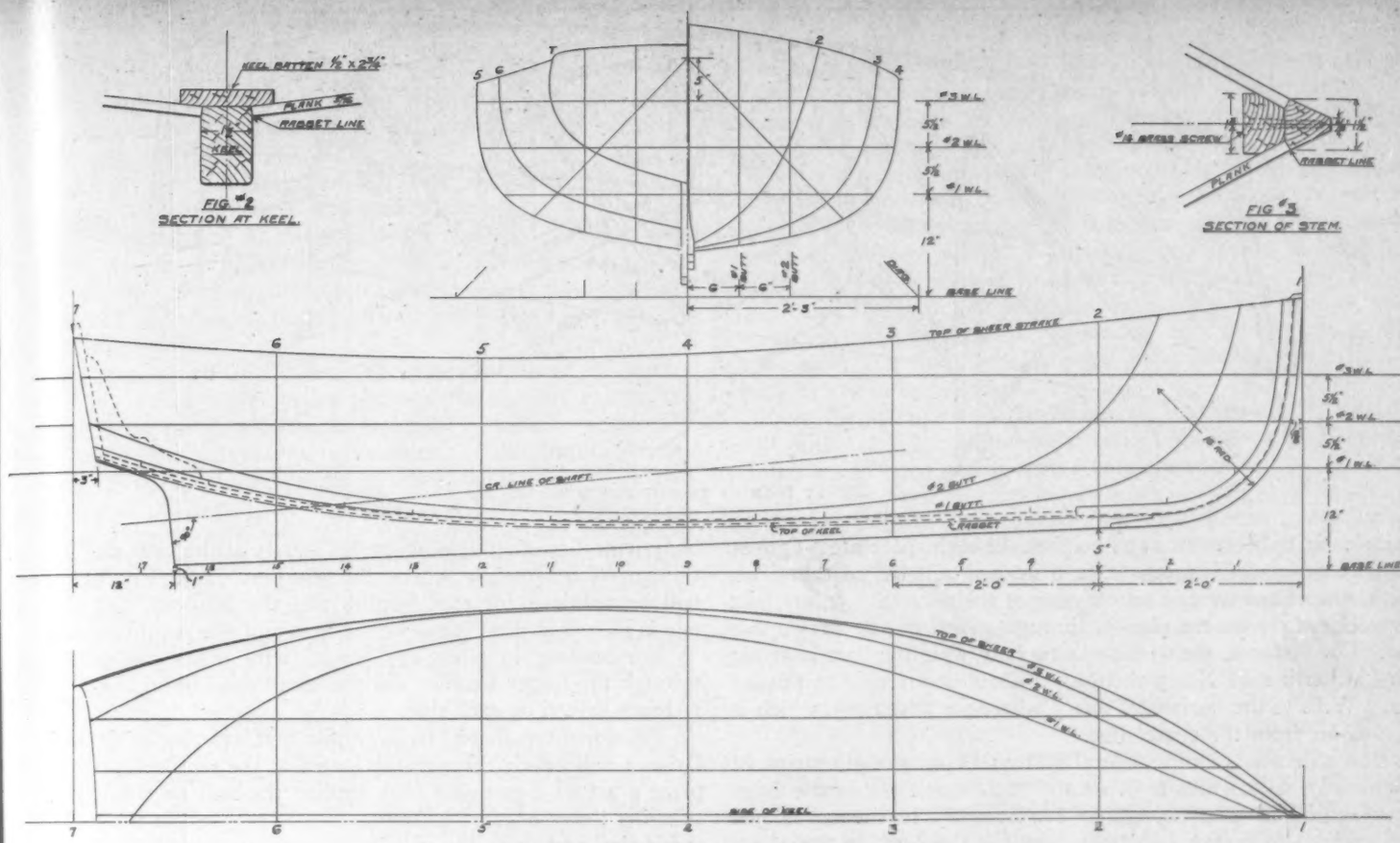



FIG. #2 SECTION AT KEEL.

FIG. #3 SECTION OF STEM.

LINES OF 12-FOOT POWER TENDER.

show pencil marks plainly, very good; if not it should be given a coat of light colored flat paint. Close to one side of it draw a perfectly straight line, 13 or 14 feet long which will be the base line for the profile and also the center line for the half breadth plan, as they will be laid down in the same place and not separated as shown on the plans. This and other long lines can be struck in with a chalk line, but a more accurate way is to stretch a fine string just clear of the floor, making a pencil mark directly under it every three or four feet and drawing the line in from mark to mark with straight edge and pencil.

Above the base line and parallel to it, draw the 1st, 2nd and 3rd water lines. It is not necessary to draw these the full length, as a foot or two at each end, to obtain an ending for the same lines in the half breadth plan is all that is required. Throughout this article where mention is made of a height or of dimension "above" or "up from" the base line, it is understood to be on that side of the line on which the drawing is being made, as we imagine it represented in its normal position.

Mark off on the base line the positions of the sections or mould stations, which are two feet apart, numbering them 1-2-3, etc., as shown on the plan, and at each one, draw a line perpendicular to the base, extending it far enough to be above the sheer line when it is drawn. As these are short, an ordinary carpenter's steel square can be used, extending the line with a straight edge. At each section drive a wire nail in the floor with the upper side to the base line. These are to enable you to place the rule or measuring batten accurately to the line without inspection when measuring offsets.

Refer now to the table of offsets, in which are given dimensions up from the base line or out from the center line for all points of intersection of the various fore and aft lines with the sections and transom. In the left and right hand columns are the section or mould station numbers, so that all the dimensions in the same horizontal line with any section number apply to that section. The other column headings show to which particular line on the drawing the dimensions refer, being divided into two

TABLE OF OFFSETS

| SECTIONS | HALF BREADTHS | | | | | HEIGHTS | | | | SECTIONS |
|---|---|---|---|---|---|---|---|---|---|---|
| | #1 W.L. | #2 W.L. | #3 W.L. | SHEER | DIAG. | SHEER | #1 BUTT | #2 BUTT | RABBET | |
| STEM | 3/16" | 3/16" | 3/16" | 3/16" | | 2-8-0 | | | | STEM |
| 2 | 0-8-2 | 0-11-6 | 1-1-6 | 1-3-3 | 1-4-0 | 2-5-2 | 0-9-5 | 1-6-1 | 0-6-2 | 2 |
| 3 | 1-5-2 | 1-8-4 | 1-9-7 | 1-10-2 | 1-11-4 | 2-3-0 | 0-6-6 | 0-8-4 | 0-5-5 | 3 |
| 4 | 1-9-7 | 2-0-1 | 2-0-6 | 2-0-6 | 2-2-2 | 2-1-4 | 0-6-0 | 0-7-0 | 0-5-2 | 4 |
| 5 | 1-9-4 | 2-0-2 | 2-0-5 | 2-0-5 | 2-1-6 | 2-1-1 | 0-6-3 | 0-7-5 | 0-5-4 | 5 |
| 6 | 1-2-5 | 1-8-5 | 1-10-0 | 1-9-7 | 1-9-7 | 2-1-7 | 0-9-1 | 0-10-7 | 0-8-0 | 6 |
| T | | 0-11-6 | 1-3-7 | 1-3-6 | 1-3-3 | 2-3-6 | 1-3-0 | 1-5-5 | 1-1-4 | T |
| | KEEL AND STEM HALF BREADTH = 3/4" | | | | | | | | | |

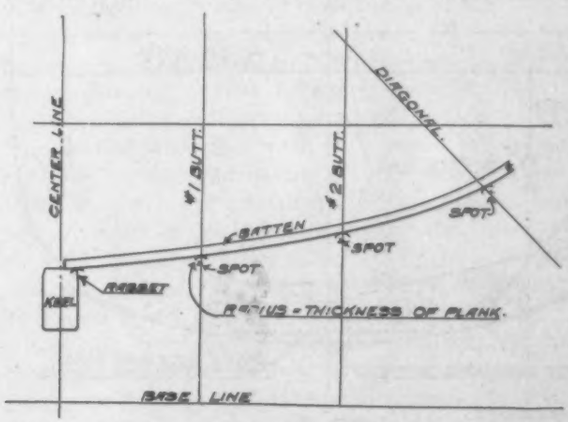
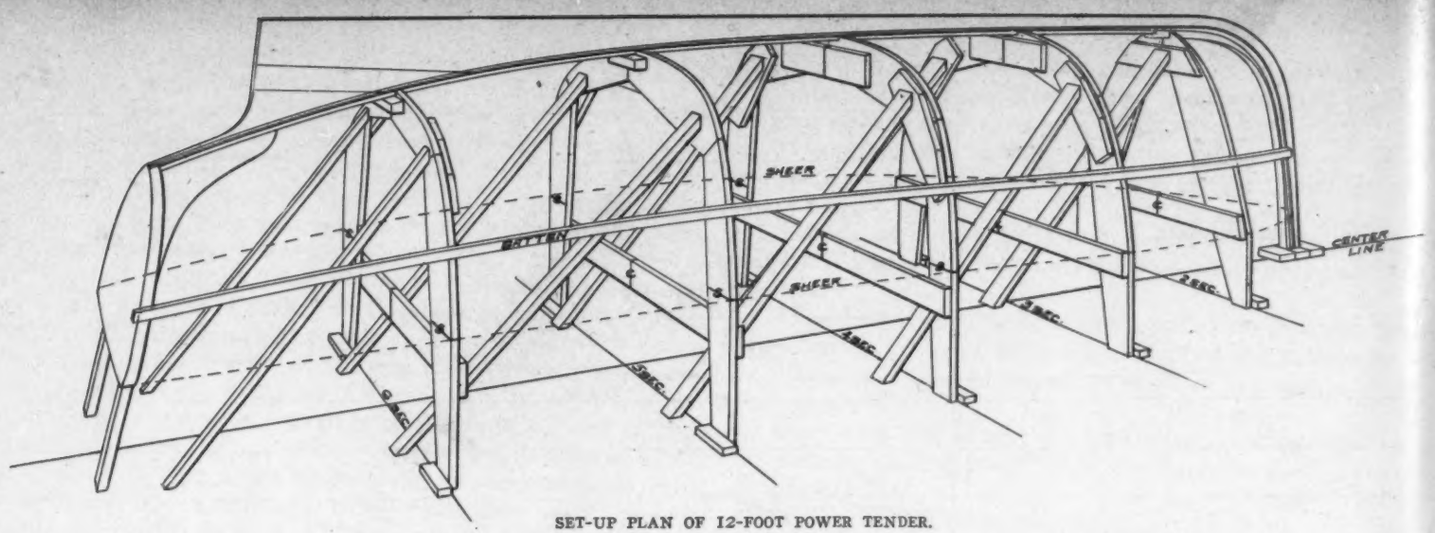



FIG. #4 TAKING OFF PLANK.




SET-UP PLAN OF 12-FOOT POWER TENDER.

groups, *viz.* half breadths and heights. In each space are 3 figures, such as 1-6-2 which means 1 ft.-6 in. and 2/8 in., so that from these dimensions we can set off or spot the necessary points (not given elsewhere on the plans), through which can be drawn any line. For instance, we wish to know how wide the boat is at the third waterline on No. 5 section. Follow down column headed No. 3 W.L. to the horizontal line 5 where we find 2-0-5, which is 2-ft.-⅝-in. from the center line.

You will now require several battens (long straight strips of soft wood), with which to draw and "fair" the lines on the floor. They should be thin enough to bend readily to the curve, yet stiff enough to insure fair lines, and for the lines in the sheer and half breadth plans, it should have length sufficient to extend about two feet beyond the last spot at each end. For the sheer line of this boat a batten ½"x1½" used on its flat will be about right; for the sheer line in the half breadth plan ½"x1", slightly tapered from near the middle to each end; and for the waterlines the same type of batten somewhat narrower. Of course a batten that is suitable for a waterline could also be used for the sheer line in the profile plan but not so well. A limber batten can be made to follow all the spots and the untrained eye will not see that the line is unfair, while a stiff batten will resist this and tend to bend fair of itself. A coat of flat black on these long battens makes them show up better and is worth the trouble. For the body plan they should be about ⅜" square at the ends and a little thinner in the middle where the sharpest curve will be. One will be required for each section and the transom, and if each one is planed as used it can be made to suit the requirements.

For holding in place 1½" or 2" wire brads can be driven through the larger battens, but the small ones should be held by 1" brads driven on each side.

Put down the sheer line in profile first, starting at either end. Drive a nail nearly through the batten at the required place, then place a 4-foot measuring stick against the nail on the base line, bringing lower edge of batten to the offset given in the table for that point, and drive the nail in far enough to hold it. Fasten it in the same manner at all the sections and then spring the free ends to continue the curve and fasten them. Inspect the line carefully and if it is fair, that is, if it forms a nice, true curve from end to end without any humps or hollows, pencil it in and take up the batten. If it is not fair, make such alterations as may be necessary, shifting the batten as little as possible to obtain the desired result.

Next draw the bottom of keel, taking the heights and position of the after end from the plans. Extend it well forward of No. 2 section so that the outline of stem can be drawn to meet it. From No. 1 section set off on No. 2 W.L., 1⅜", and with a radius of 16" draw an arc of a circle cutting this point and joining keel line, which gives the forward edge of stem. Continue this line in a fair curve to the height of stem, using a suitable batten.

Next draw and fair the rabbet line in the same manner as the sheer and follow with it up the stem parallel to and 1⅛" from the forward edge as far as No. 1 W.L., from which point it should be faired to 1" from forward edge at head. While the tools are handy draw another line as shown, 1¼" from the rabbet, representing the after side of stem; mark the after end, also lay out the scarf where it joins the keel.

Next fair and draw the half breadth of sheer. The forward end of this line is ¾" out from the center line and 1" aft of No. 1 section.

We are now ready to tackle the body plan and for this I would suggest several boards secured together with cleats on the back, forming a separate drawing board about 4' 6"x3' 0", which can be put on horses or moved around at will. Close to the lower edge nail a straight strip

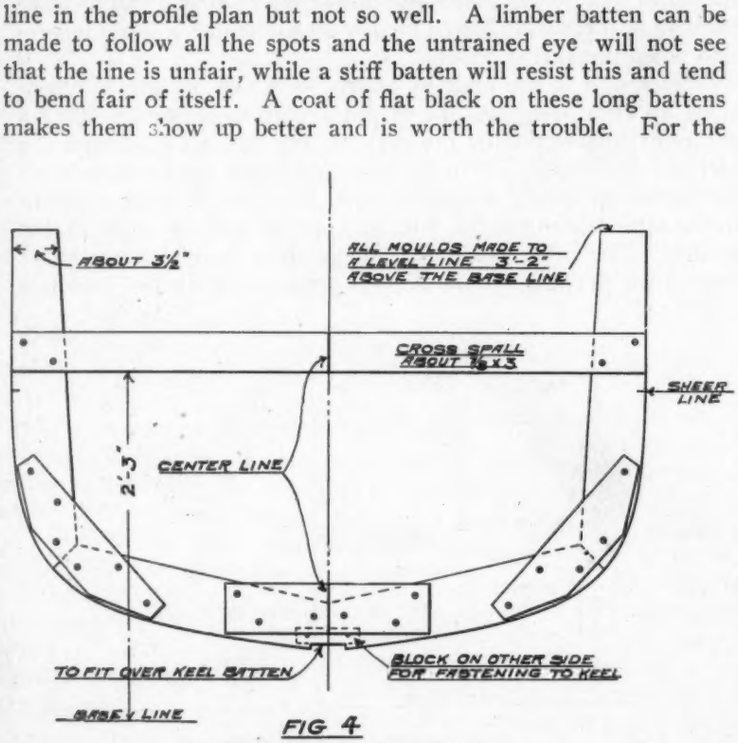

ABOUT 3½"
ALL MOULDS MADE TO A LEVEL LINE 3'-2" ABOVE THE BASE LINE
CROSS SPALL ABOUT 1" x 3"
SHEER LINE
CENTER LINE
2'-3"
TO FIT OVER KEEL BATTEN
BLOCK ON OTHER SIDE FOR FASTENING TO KEEL
BASE LINE

FIG 4

CONSTRUCTION OF MOULDS

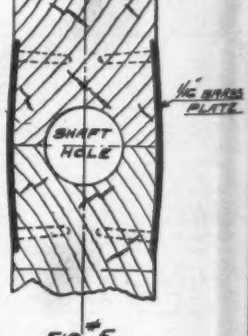



FIG. 5

about ½"x2" to form the base line, and perpendicular to this, draw the center line. Now, working from the dimensions given on the lines, draw in the waterlines, buttocks and diagonal, using straight edge and pencil.

Tack a straight batten temporarily with one edge to the center line, and with a rule placed against the center, or base line, as the case may be, spot all the offsets on one side, marking each spot thus, $\frac{3}{V}$, with its proper section number. Omit the sheer, both height and half breadth, also the rabbet line as these lines have been faired and the corrected offsets will be taken from the other plans as follows:

Take a clean and smooth stick of white pine about ½" square and 3' long, called a pick-up batten, and placing one end to the base line in the profile plan mark the height of sheer as previously faired and drawn, numbering each section. On another similar batten pick up the half breadth of sheer and using these two together spot the height and half breadth in the body plan.

Draw a line on each side of the center for the half breadth of keel (¾") and on this mark the rabbet heights picked up from the line in the profile plan which has already been faired. Reverse the batten on the center line and do the same on the other side. It will be found convenient to mark all the sections on one line without shifting the rule, rather than one section at a time on all the lines.

We now have all the spots in the body plan for the outside of plank, but as we will need to make the moulds to the inside, it will be necessary to take off the thickness of plank, which is 5/16". Set a pair of compasses to 5/16" and with the spots as centers draw small arcs as illustrated in Fig. 1. Bend a suitable batten for each section with the outside to these little arcs, holding them as required with slim wire nails driven on both sides at each arc. Allow 6" or more in length above the sheer line to insure a fair ending. When all the battens are bent inspect them carefully and make such changes as will give fair lines. On no account change the rabbet or sheer line, as these are now fixed points. It may be that a few extra nails, intelligently placed between the ones already in, will accomplish this without any departure from the spots.

Now, from the body battens pick up the offsets on the diagonal and run a batten to them in the half breadth plan. If it is not fair the battens on the body plan will have to be changed to make it so. If they have been shifted on this line, try putting them back, making them fair again by shifting some other points. In the same manner test the other fore and aft lines, working back and forth until all three plans agree and show fairness.

The forward ending of any waterline or the sheer line in half breadth is at the rabbet line. To get this, square down the point of intersection of the waterline and rabbet in the profile to the half breadth of rabbet (¾") in the half breadth plan. This gives the outside of plank, and 5/16" should be taken off for the ending of the line.

When satisfied that the body plan is right, draw in the lines and take up the battens. It is not necessary to pencil in the lines in the half breadth and profile plans, except at the forward ends of the waterlines to give the shape of rabbet on the stem and at the after ends of all lines to give bevels for the transom. From the original spots for the rabbet line in the body plan (outside of plank) draw short lines square to the planking until they intersect the section line (inside of plank). See Fig. 2. These lines give the bevel of the keel forming rabbet, and the points of intersection give the heights of the top of keel, which should be transferred to the sheer plan and drawn in. At each station except No. 2, draw in a section of the keel batten which is ½"x2¾", and at No. 2 draw a section of the stem. Extend the transom line in the body plan to the center line; transfer this height to the sheer plan and from it draw a line parallel to the rabbet for bottom of horn timber. The sheer line and crown of transom may now be drawn in the body plan, which finishes it.

Next locate and draw the center line of shaft, the position of which will be governed by the engine to be installed. Allow ½" clearance between the propeller blade tips and the horn timber. On top of the keel will be a batten ½" thick and at least ½" clearance should be allowed between this and the engine flywheel. The size of flywheel will no doubt determine the height for the forward end of shaft line, but make sure that other parts of the engine clear and that there is room for sufficient wood in the engine bed to insure rigidity.

From the after end of the bottom of keel draw a line square to the center of shaft for the after end of deadwood, and connect it to bottom of horn timber with a curve as shown.

The laying down and fairing of a set of lines is quite an art and the story far too long to tell here. For further information on this subject I would refer the reader to Mr. C. H. Hall's article in the February and March, 1911, issues of YACHTING. This tender, however, is drawn to a large scale, should be nearly right and require very little fairing. The offsets being given to the nearest ⅛" will, of course, show some discrepancies.

### TEMPLATES.

Templates or patterns, can now be made for the keel, etc., or the lines on the floor can be transferred directly to the material to be used. If you have some thin stuff, it is better to make templates, as they can be shifted around on the plank so as to cut to best advantage, avoiding knots and other imperfections.

The easiest method of transferring the lines from the floor is with tacks or small wire nails with large but thin heads. Lay these a suitable distance apart with their heads to the line to be taken off, lay the board carefully on them and press firmly to imbed the heads in it. With straight edge and batten, pencil through these spots and saw it out, allowing a trifle for fitting.

The keel, deadwood, shaft log and horn timber in this boat are all in two pieces with a joint at the center line of shaft, and a template should be made for each piece. Fit them carefully to the lines and before taking up, mark the sections. It will not be necessary to make one for the stem, if the method to be explained later is used. Make a half template for the after side of transom, also one for the stern knee.

### MOULDS.

The moulds are temporary forms over which the boat is built and may be made of any soft wood ¾" or more in thickness. Make one for each section. Fig. 4 shows the construction of No. 4 mould, which will apply equally well for all except No. 2, which may be made with but one piece on a side. Transfer the lines from the body plan to the material to be used as described for the keel template, or by the following method, which has its advantages: Bend a thin batten about ¾" wide with its outside to the line, holding it in place with wire brads, driving as few as possible on the outside and having all nail heads below the top edge. Then lay the board on this and with a pointed rod turned up at the end, reach under and scribe along the batten. Cut out and plane until the pieces fit the lines; also fit the lower end to the center line and around the keel batten. The upper end should extend to a level line 3' 2" above the base.

Now tack the fitted pieces in position on the body plan and secure the butt with a cleat, screw fastened; also mark the sheer height plainly on the edge and sides, and the position of the cross spall, which is 2' 3" above the base. Make a similar half for the

(Continued on page 274)

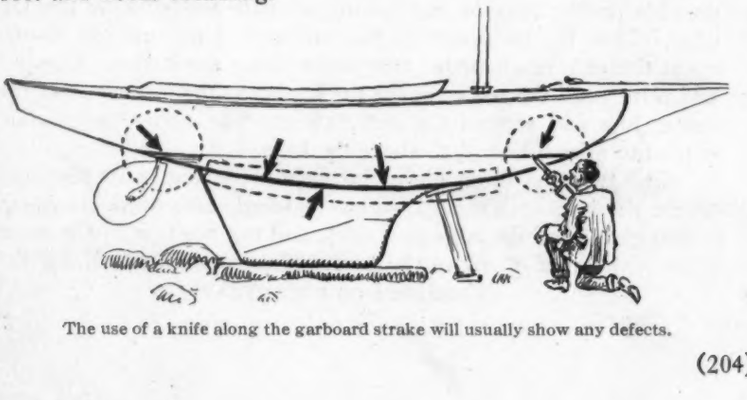
# Some Hints on Buying a Boat

HOW TO LOOK FOR THE SPOTS WHERE DETERIORATION FIRST SETS IN. EVEN THE OLD HANDS OCCASIONALLY OVERLOOK DEFECTS. PLENTY OF GOOD BOATS TO BE HAD.

ALL of those who have bought or swapped boats to any considerable extent have probably learned by experience (which may sometimes have been bitter and costly) the points to look out for in choosing a second-hand craft; though even those who have owned a number of craft will occasionally overlook some vital points in buying, or will let their fancy for a boat that catches their eye blind them to some defect in her. This is not to say that most of the second-hand boats are a poor lot, or that trading in them is in the same catagory as a "hoss deal"; for there are a whole lot of good boats on the market that may always be had, though unless one knows especially what to look out for in determining their condition he stands a chance of landing something that is not all that she looks or that his fond imagination pictured. While these hints are for the man who is new at boat buying, they may contain some information that the old hand may not be too proud to acknowledge.

In general, it is best to examine a boat that you think of purchasing during the winter or spring when she is hauled out on shore and has had a chance to dry out, as her underbody and form can then be seen. One should be very careful about buying a boat in the water without a very thorough examination inside; and even then unless the plans of her are available the shape of her underwater body will not be known. Also, be very wary of a boat that has been freshly painted and touched up, as "selling paint" can cover a multitude of sins, though it adds to the attractiveness of the boat. On the other hand don't be afraid of a boat just because she is old. Don't let 15 or 16 years scare you off, as a boat that has been well built and has had good care may be good for another 10 years, and may be equally good in every respect as a poorly built boat that is only 5 or 6 years old.

After deciding on the type, style and price of the boat that you want, and finding such a craft, the first move is to look her over carefully outside. Take a good squint at her underwater profile and at her sections, looking both forward and aft to size up her shape, noting particularly if it is fair and true and that the boat has not been strained or lost her form. Also look for any breaks, checks or rough places in the planking and note particularly the keel, especially if it is a lead one, to see if it shows marks of having been ashore at any time. Look at the seams closely. They may be dried out and opened up so that the putty in them shows wide cracks. Some boats open up pretty wide in the warm days of early spring and yet will swell up when put overboard if the seams are hard, while others will open up hardly at all. The latter class usually indicate high grade work and material. Try the seams with a knife and see that they are hard and firm. If the knife sinks in easily, exposing the cotton, the seam is usually soft and needs recalking.



The use of a knife along the garboard strake will usually show any defects.

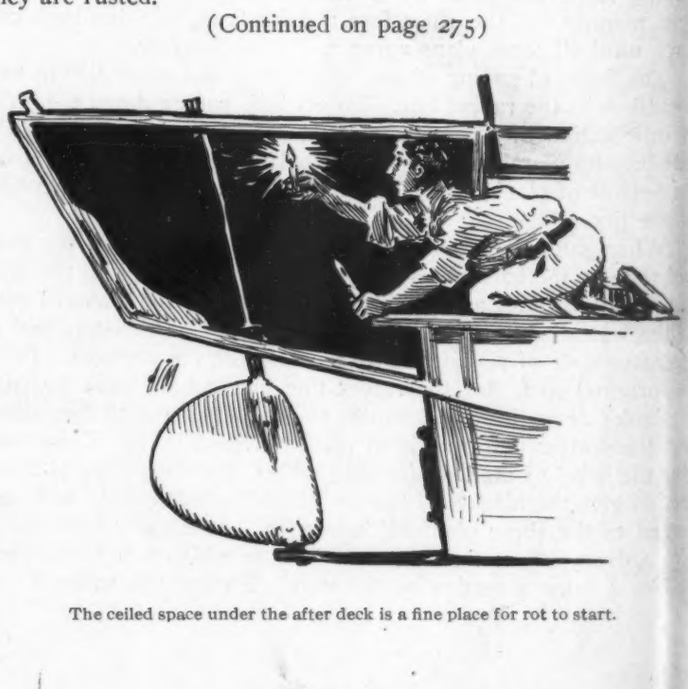
Watch closely the garboard strake (the bottom plank next to the keel) on each side. This is the plank that usually goes first, or first shows signs of rot. See if it is soft where it joins the stem or stern post by sticking your knife into the wood. If it is hard, and the fastenings are all right, it is in good condition. Also look for signs of decay in the deadwood of rudder post. The rudder post where it goes up through the rudder port may show signs of decay, or of the little borer worm called toredo; or if it is a metal rudder post it may show signs of rust. If the craft is a center-board boat, one should also look for signs of borers on the bottom of the centerboard or just inside the centerboard well.

While still on the outside of the boat one should also look carefully at the deck. If it is canvas covered, look at the condition of the canvas, see whether it shows signs of wear or wrinkles, or if the paint is cracked or peeled. It usually goes first around the openings in the deck, such as skylight coamings, companion slides, etc. If it is a wooden deck see if the seams are tight. If the glue is cracked and dried out it will need recalking and paying with fresh glue. Also look if the wooden plugs which cover the deck fastenings protrude much above the deck, due to excessive scraping of the deck planks. If this is so it is hard to remedy, as the deck has evidently been scraped pretty thin and the wooden plugs will be continually coming out, exposing the heads of the fastenings.

When you come to the inside you want to examine very closely for signs of defect, as it is in the dampness of the bilges and the closed places at either end that rot first makes its appearance.

Pull up the floor boards of the cabin and look the keel over carefully. Practically all keels are of oak and it should be of substantial size and show no signs of softness or decay. See if the floor timbers (crosspieces of hardwood which go over keelson and hold the frames together) are in good condition and of suitable size. Sometimes galvanized iron straps are used in place of these floor timbers and these want to be looked at to see if they are rusted.

(Continued on page 275)



The ceiled space under the after deck is a fine place for rot to start.

# The Inter-Club Yacht Racing Association of Massachusetts

A HISTORY OF THE ORGANIZATION THAT HAS DONE SO MUCH TO KEEP ALIVE RACING AMONG THE OLDER BOATS. THROUGH ITS EFFORTS THE SPORT IS JUST AS SPIRITED AMONG OWNERS OF OUTBUILT BOATS AS WITH THE MEN WHO CAN AFFORD TO BUILD EVERY YEAR.

PART II—THE SEASON OF 1911.

By HOLLIS BURGESS.

GREAT preparations were made by the officials of the Association to make the season of 1911 the greatest yet seen, and at a meeting at the Lynn Yacht Club, April 28, announcement was made that Lieutenant-Governor Frothingham would offer a handsome trophy for the 1911 championship in Class A. The Lieutenant-Governor gave this cup without any solicitation whatever, being desirous of seeing the yachting game on the Massachusetts coast put upon a high plane, and appreciating the work the officials of the Inter-Club Association had done the past few years to accomplish this purpose.

Vice-President Coffin outlined the plans of the Regatta Committee of the Lynn Yacht Club for its annual regatta on August 5, and also for the squadron run to Marblehead the following day. He declared that no pains would be spared to make this run one of the greatest affairs of the season. Seventeen prizes were offered for this event, one, by the Lynn Item and the rest by the Association, which voted to assess each club for this purpose.

On May 15, 1911, the Savin Hill Yacht Club came into the fold, making the tenth club to join the Association. The Memorial Day regatta broke all records, 96 boats contesting. Class B made the greatest showing with 15 starters. Quakeress, a newcomer to the Class, owned by J. W. Damerell, Jr., took first prize with Sintram, second. Other Class B boats which made their first appearance were Pirate, Spook, Flame, Mildred II ; Barracouta; Jack Rabbit and Beryle. In Class A, Nutmeg, practically a newcomer to the class, took first prize with Medric I, another new boat, second. Nine boats in all started in Class A, including Tiger, George Carroll's new 25-footer, and as this was the first contest for the Frothingham Trophy their work was followed with keen interest. All the other classes were well filled and the Association officials were much gratified with the success of this opening race.

MARIE L, WINNER OF THE BERMUDA CUP.

The next race, June 3, under the auspices of the Mosquito Fleet Yacht Club, was sailed in a smashing southwest breeze. Several boats broke down and the whole affair was most thrilling.

On July 1st the Cottage Park Yacht Club had an entry list of 58 for its regatta. In the City of Boston Fourth-of-July regatta, 44 boats started and 57 entries were recorded in the Columbia Yacht Club race of July 15. The following week the Savin Hill Yacht Club held its first Inter-Club regatta which was well attended, and on July 29 the Squantum Yacht Club race had 47 sailing yacht and 7 power boat entries. August 5, the Lynn Yacht Club held a most successful regatta, though lack of wind bothered the racers considerably. Sixty-six yachts started in 10 classes and power boats showed up strong with 15 contestants.

Next day came the much heralded Lynn Yacht Club's Inter-Club squadron run from Bass Point, Nahant, to Marblehead. A dense fog hung over Massachusetts Bay most of the day but it could not dampen the ardor of the yacht owners, who were looking forward with the keenest anticipation to the coming week of racing at Marblehead.

A great fleet of 88 sailing yachts and 16 power boats started with the squadron and all but 12 crossed the finish line off Marblehead Rock. In Class A, Flirt won a closely contested battle, with Nutmeg, second and Virginia right at her heels. Pirate, owned by R. S. Landers of the Mosquito Fleet Yacht Club finished first in Class B, capturing the Lynn Item Trophy. The H. Lindsay led Class C into port by a good margin. Mudjekweewis won the Class D and Winniahdin took first prize in Class S. The best time over the course was made by Flirt, David Henwood's speedy black-hulled 25-footer, but so light and baffling was the wind that it took her almost three hours to cover the distance, and many of the boats did not finish until after dark. In spite of the disagreeable weather conditions all hands pronounced this run a great success and the Lynn Yacht Club proposes to make this event one of the most important yachting affairs of the season of 1912.

Next morning the yachtsmen found a dense fog enveloping Marblehead and all day long the boats in the harbor were swathed in a misty shroud. During the greater part of the preceding week heavy fog banks had been rolling up out at sea and continuous southeasterly winds had blown this unwelcome visitor into the harbors along the coast with unrelenting perseverance. The Eastern Yacht Club race for that day was postponed until August 10. Next day the Boston Yacht Club tried to hold its regatta but the yachtsmen were again vanquished by their arch enemy, fog, and this event was postponed until August 11.

Wednesday a fresh southwesterly breeze routed the fog legions and a glorious sun shone out bright and clear. One hundred and thirty-nine sailing yachts and three power boats took the starting gun in the first race of the Corinthian Yacht Club's Midsummer Series. In Class A, 11 boats started, Marie L., recently purchased by the writer, making her first appearance of the season. Thursday the Eastern Yacht Club's postponed regatta was held. Only 7 classes in all were provided for in this

THE QUINCY YACHT CLUB, ONE OF THE MOST ENTHUSIASTIC RACING CLUBS ON MASSACHUSETTS BAY.

regatta, but 52 boats took part and the recognition of Inter-Club racing by the Eastern Yacht Club for the first time was much appreciated. In the afternoon race, the second Corinthian race of the series, a great fleet of 140 sailing yachts and 9 power boats appeared.

Friday morning the Boston Yacht Club's postponed regatta was sailed in a light easterly wind, with 63 yachts participating. In the afternoon the third Corinthian race of the series was started in a light easterly breeze but ended in a spiteful squall which caused many thrilling incidents. One hundred and forty-two sailing yachts and 5 power boats started. As this immense fleet was making for the finish line in the various classes the squall swooped down on them. One dory, the Rover, was struck by a catboat and cut to pieces, her crew saving themselves by leaping aboard the catboat, while Shadow, another dory, was struck by a second catboat and capsized, her crew being picked up by near-by boats. Several yachts withdrew because of accidents and the race was a thoroughly exciting affair.

Nutmeg won in Class A, thus capturing the Midsummer Series Trophy for her class; Winona won again in Class B, securing possession of the coveted Series Cup in that class. H. Lindsay won the trophy in Class C, making three straight victories over Violet. The Midsummer Cup went to Dolly III, as she had won the first two races of the Series. Wawenock annexed the cup in Class S by winning her second consecutive race.

Saturday, August 12, Race Week ended in a blaze of glory, all previous records in America being beaten in the number of entries. One hundred and forty-five sailing boats and 6 power boats started in the 26 classes, making a grand total of 566 starters for the four days. Who says the sailing yacht is dying out? In some localities where power boats are more adapted to conditions, the sailing yacht has given way to its noisy rival, but as long as Massachusetts Bay yachtsmen flourish the sailing yacht will still hold sway! Let the pessimistic old-time yachtsman who is forever croaking that sail yachts have gone by consider this Race Week at Marblehead, and take heed!

On August 19, the Winthrop Yacht Club held a spirited regatta in a strong northwest breeze. Fifty boats participated and the three leaders in Class A seesawed for first position all over the course, each one being ahead at different stages of the race, and it was only at the finish of the last leg to windward that Nutmeg established a safe lead for first prize.

Winona took first prize in Class B, with Beryle only a few seconds behind. In Class C, much excitement was furnished by a collision between Violet and H. Lindsay at the start, when Violet running down to the line on the starboard tack struck H. Lindsay, which was moving slowly and could not get out of the way. Violet snapped H. Lindsay's topmast shroud with the tip of her boom and the latter's topmast fell to the deck with a crash. No one was injured and her crew worked like demons to clear away the wreckage. In a few minutes she was able to square away and start in hot pursuit of her rival, and so fast did she sail, even in her crippled condition, that she finally caught Violet close to the finish, beating her across the line by the narrow margin of five seconds. Wawenock sailed a great race in Class S, defeating her 5 competitors by over 3 minutes. In Class D the little Busy Bee distinguished herself by winning on actual as well as corrected time.

The following Saturday the Quincy Yacht Club held its regatta, and what promised to be one of the best contests of the season was spoiled by the start being postponed over an hour, on which account the tide was over four hours ebb when the yachts

A CLOSE BRUSH BETWEEN VIOLET AND H. LINDSAY.

BARRACOUTA, WINNER OF THE SERIES PRIZE IN CLASS B.

finished. Many of the racers struck bottom or dragged their keels through eel grass to such an extent that the race was in no way a fair test of speed.

September 2, the Wollaston Yacht Club held a regatta in a smashing southwester. As this was the last race of the season counting for percentage for the Frothingham Trophy, interest centered in Class A. After a hot battle with Flirt, Nutmeg won a well deserved victory and thereby won the Frothingham Trophy by the narrow margin of one point, making her the champion Class A boat for 1911. Barracouta won in Class B, thus securing her hold on the championship of that class. H. Lindsay won in Class C, and Wawenock in Class S.

Though this was the last official race of the Association for 1911, the most important regatta was yet to be held, and one which will probably have far-reaching effect on the future of the Association. This was the special Labor Day regatta of the Mosquito Fleet Yacht Club, with the City of Boston Bermuda Cup for the chief prize.

For those readers who may not be acquainted with the reason for this valuable prize being offered for this regatta, I will state them briefly. In an endeavor to promote an ocean yacht race from Boston to Bermuda in the spring of 1911, a valuable trophy had been solicited from the City of Boston to serve as a stimulus for this event. The City of Boston has always responded to its yachtsmen's interests, and Mayor Fitzgerald and the Boston City Council won the everlasting gratitude of local yachtsmen by generously appropriating $500 for a trophy which should prove second to none, and a cup was turned out which is generally regarded as the finest bit of silver-smithing ever made in Boston. It was a sterling silver, gold-lined punch bowl, 18 inches high and 24 inches in diameter, beautifully ornamented with Easter lilies, emblematic of Bermuda, and golden rod, emblematic of the United States. On one side was a panel with two racing schooners shown on it; on the opposite side a panel to be inscribed with the name of the winning boat and owner. The handles were two Victories with outstretched wreaths, the bowl being supported by four dolphins on a four-cornered base of silver, the whole resting on an ebony plinth bearing crossed flags of the Boston Yacht Club and the St. George's Yacht Club of Bermuda. It was certainly a prize well worth racing for.

Owing to a combination of unforeseen circumstances the Boston Yacht Club, which had charge of the race, had to call it off on account of lack of entries. The trophy was, therefore, returned to the City and Boston yachtsmen failed to witness the picturesque spectacle of the start of a great long-distance ocean race. Mayor Fitzgerald was keenly disappointed at the failure of the race, but concealed his disappointment like a true sportsman. Nothing was done with the trophy for the time being, and it remained at City Hall until early fall. Shortly afterwards, the officers of the Mosquito Fleet Yacht Club determined to try and secure this trophy for a grand Labor Day race, and Mr. Cornelius J. Driscoll, the Club's Treasurer after interviewing the Mayor secured his consent to this.

Only a few days were left to make preparations for this event, but the Regatta Committee of the Mosquito Fleet Yacht Club, whose chairman, ex-Commodore Cyrus K. Small, is one of the most popular local yachtsmen, acquitted themselves nobly. Circulars announcing the conditions of the race were sent out everywhere. The course was laid out 30 miles in length starting from the Mosquito Fleet Yacht Club, South Boston, to Flip Rock, Nahant; thence to Boston Lightship and return, or the reverse, and Classes A B C and D of the Inter-Club Association and I and P of the Y. R. A. were declared eligible to compete as well as all other yachts under 55 feet overall measurement. Time allowance was figured on the usual Herreshoff table, except that Classes A and P had to allow the other classes 15 minutes over their regular time allowance. Besides the Bermuda Cup for first prize, the Mosquito Fleet Yacht Club generously offered $20. cash for a second prize, $15. for a third prize, and $10. for fourth prize, with an additional prize of $5. to the yacht making the best corrected time in each of the six classes, excluding the first four prize winners.

Labor Day dawned bright and clear, and after a delay of thirty minutes to permit boats to reach the starting line in the light southeasterly wind that prevailed, the race was started at 10.30 a. m. Nearly 40 boats went over the starting line in their respective classes and the fleet presented a beautiful picture as the racers strung along on their way to Flip Rock, Nahant. The

NUTMEG, WINNER OF THE SERIES PRIZE IN CLASS A.

little yellow-hulled 18-footer Moslem, which had started in the first division, went around Flip Rock in the lead, followed by Sintram, the speedy Class B racer. Then came Virginia, hotly pursued by Marie L. and Nutmeg. The next leg to the Lightship was 8 miles dead to windward. Marie L. made a long tack out to sea, while most of the other boats headed inshore. Sailing fast in the moderate air Marie L. worked out a lead over the whole fleet, rounding the Lightship well ahead of Virginia, and Nutmeg, with the rest of the fleet straggling behind.

On the homeward leg before the wind Marie L. went through Hypocrite Channel into Broad Sound, taking this course as it was the shortest distance. H. Lindsay followed her, but all the other boats tried the Main Ship Channel by Boston Light. Although this was a great risk for the Marie L to take, being in the lead at the time, and it always being dangerous to leave one's competitors in such a case, nevertheless she gained considerably by the move; in fact, H. Lindsay gained so much by following her that she jumped from the sixth place at the Lightship to second place at Deer Island Light. As Marie L. drew near the finish the wind kept falling and H. Lindsay, with a big topsail spread aloft, rapidly overhauled her. She did not quite catch her, however, and the former slid across the line 1 minute 45 seconds ahead. The third boat to finish was Virginia, then came Onda II, Arawak, Novice, Flirt and Sintram in order.

Arawak sailed a remarkable race, and though she finished on actual time, 27 minutes and 14 seconds behind Marie L., she came within 11 seconds of winning first prize on corrected time. So close was the racing that it was not known until the judges had figured the times which boat would get the much coveted Bermuda Trophy. Arawak won the second prize of twenty dollars, Sintram third prize and Nutmeg the fourth.

Seldom has a long race like this had such close finishes. The last boat of the fleet was little over an hour behind the first in spite of the light airs, and many of the boats finished within a few seconds of each other. The whole affair was most ably handled under the direction of Cyrus K. Small, and no protests of any kind were recorded.

The writer had previously announced that if Marie L. won the Bermuda Trophy he would offer it to the Inter-Club Association as a perpetual challenge trophy for a long-distance race in Massachusetts Bay, to be sailed on Labor Day each year, so that the victory meant that the Association would benefit as long as it existed, as a result of Mayor Fitzgerald's public spirited action in turning the Cup over to the Mosquito Fleet Yacht Club.

September 9, the South Boston Yacht Club had scheduled a big race to be sailed on overall measurement instead of the regular Inter-Club measurement, but stormy weather caused this race to be abandoned and next day the yachting season on Massachusetts Bay for 1911 wound up most brilliantly with the annual Y. R. A. Rendezvous.

The following week at a large gathering of yachtsmen in the assembly hall of the South Boston Yacht Club Lieutenant-Governor Frothingham presented his trophy to Allen C. Jones, owner of the Nutmeg, champion of Class A. In the final standing for percentage in Class A for 1911 Nutmeg had 123 points, Virginia 122 and Flirt 121. The racing in Class A throughout the season was the closest ever seen on Massachusetts Bay, and no one boat was ever sure of victory until the finish line was actually crossed.

In Class B, Barracouta owned by A. W. Glover won the championship with 116 points; Winona was second with 109 points, and Quakeress third with 102 points. In Class C, H. Lindsay won the "cock-of-the--walk" pennant, scoring 49 points; Violet was second with 41 points, and Thialfi third, with 25. In Class S Wawenock won the championship with 70 points, Zoe was second with 60 points, and Winniadin third with 50 points.

In the Catboat class, E. W. Emery's Mudjekeewis captured the championship pennant with a percentage of 90. Busy Bee was second with 88 and Dolly III won the third prize pennant with 80 points.

Beachcomber won the championship in the Cabin Launch Class, and Annabel in the Open Launch Class.

On September 28, the Quincy Yacht Club ended its season with the annual "Cup Night" in which prizes won during the season by members were presented and appropriate speeches made by representative yachtsmen. At the annual fall meeting of the Inter-Club Association the delegates voted that in the future new boats should be allowed to sail in Classes C and S and a limit of 38 feet overall length was set for class S. It was also voted that no appeals should be allowed from the race judges' decisions in the future, their action being absolutely final.

On October 28, a banquet was held by the Association at the American House, Boston, at which over 200 were present. Secretary Campbell read a most interesting statement which gave a good idea of the present status of Inter-Club racing. In the course of his remarks he stated that nearly 600 boats had started in the different Inter-Club races of 1911, showing clearly the hold yacht racing has on Massachusetts Bay. The writer then had the pleasure of presenting the Bermuda Cup to the Association, the deed of gift stating that it shall be raced for every Labor Day under Inter-Club Association rules, on an outside course in Massachusetts Bay, not over 50 miles and not less than 25 miles in length. The club under whose flag the winner of the Trophy may sail shall have the honor of holding the race the succeeding year, and, as Marie L. was sailing under the colors of the Quincy Yacht Club in the 1911 race the Quincy Yacht Club is to hold the Labor Day Race of 1912. Two handsome full-size engravings of the Trophy are also to be presented each year, one to the owner of the winning boat, the other to the club which he represents.

President J. Harland in his speech pictured a brilliant future for the Association in 1912 and the whole affair reflected the spirit of good fellowship and true sportsmanship that has made the Association so successful.

The marvellous growth of the Inter-Club Association is largely due to the fact that its boats are for the most part owned by men of moderate means, whose hearts are in the sport and who race for the love of the game, whether they have any chance to win or not. While the Massachusetts Yacht Racing Association occupies a most important place in Massachusetts Bay yachting by catering to new boats, the Inter-Club Yacht Racing Association of Massachusetts occupies the still more important position of maintaining the racing of old boats which, but for this Association would have no opportunity to race.

With a glorious record in the past and the brightest of prospects for the future, the Inter-Club Yacht Racing Association stands today as one of the foremost exponents of the now well-established fact that yacht racing can be enjoyed as fully by men of moderate means as by the wealthy. Long may its pennants wave over the waters of the grand old bay of Massachusetts where small boat sailors hold their sway, and the call of the tiller and sail remains as strong as in days gone by!

"The Breath of Open Sea"

# The Month in Yachting

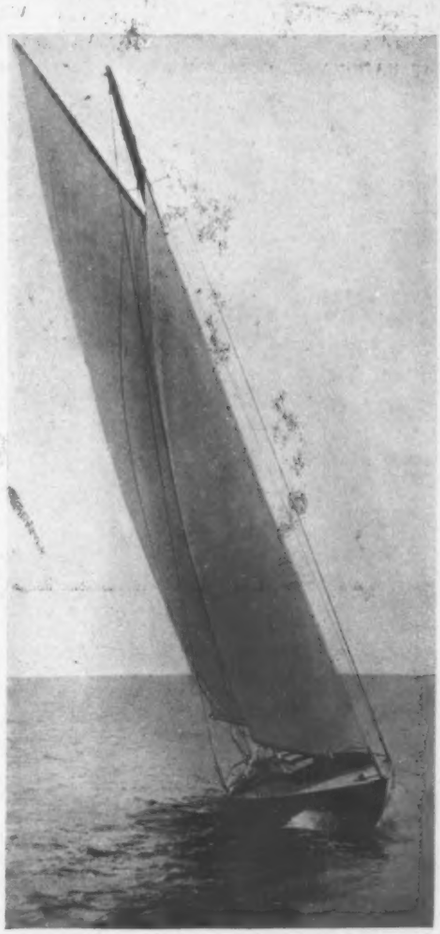
IT does one good to note the enthusiasm with which the Great Lakes and Chicago yachtsmen have taken up the offer of the Richardson Cup for International competition between Canada and the United States, and gone ahead with plans for the first race this summer. The Chicago Yacht Club has once more taken up International racing and will make a bid for the cup by building a new boat to meet the Canadian challenger which the Royal Canadian Yacht Club, of Toronto, will send down. The latter club has agreed to race at Chicago; which is fitting, both because the cup originated in America and for the reason that the last race for the Canada's Cup was won by an American boat and is now in American custody. It was because there seemed little likelihood of the clearing up of the Canada's Cup controversy that Commodore Richardson offered his cup to bring about a resumption of these International contests.

The race will be for boats of the "P" class, and the Royal Canadian Yacht Club will race Patricia, an Owen designed boat of last year which defeated Seneca in a series of races for the Fisher Cup on Lake Ontario last September. She is a smart boat in every way and in order to meet her the Chicago Yacht Club will build a new boat from designs by William Gardner. The Club subscribed the money for this boat in record-breaking time, the committee on building consisting of Fred. A. Price, Commodore Thompson, G. H. Atkin, Ogden McClurg, and J. B. Keogh raising the money in a very few days.

This series of races should be the best ever held on fresh water, and will without doubt be the big international event of the season. "Billy" Gardner and Owen will again be pitted against each other, and the boats will be handled by the ablest sailors on Lake Michigan and Lake Ontario.

It is also rumored that Chicago sailors are taking no chances on not winning this cup, and are forming a second syndicate in the Columbia Y. C. to build another boat with an eye on this race.

While talking about Lake Michigan yachting it is recorded that the annual Michigan City race of the Jackson Park Yacht Club, which has long been an annual fixture for Lake Michigan sailors, will be changed this year to Waukegan instead of Michigan City. A handsome silver trophy was offered if the change would be made and the Jackson Park Yacht Club has accepted the terms and will run the races from Chicago to Waukegan this summer.



PATRICIA, ROYAL CANADIAN Y. C. CHALLENGER FOR RICHARDSON CUP.

I had occasion to talk some time ago of the advisability of having yacht club measurers appointed instead of being elected, and, as far as possible, of having one measurer do the work for all the clubs in a locality, or for any association of yacht clubs. This would result in a more uniform system of measuring and would eliminate much of the trouble and friction that now arises over the question of a boat's rating. The Massachusetts Bay yacht clubs are already moving in that direction, and both the Boston and Eastern yacht clubs have lately taken the matter up. It would not be surprising if, in the near future, all the measuring on Massachusetts Bay would be done by one or, at the most, not more than two official measurers.

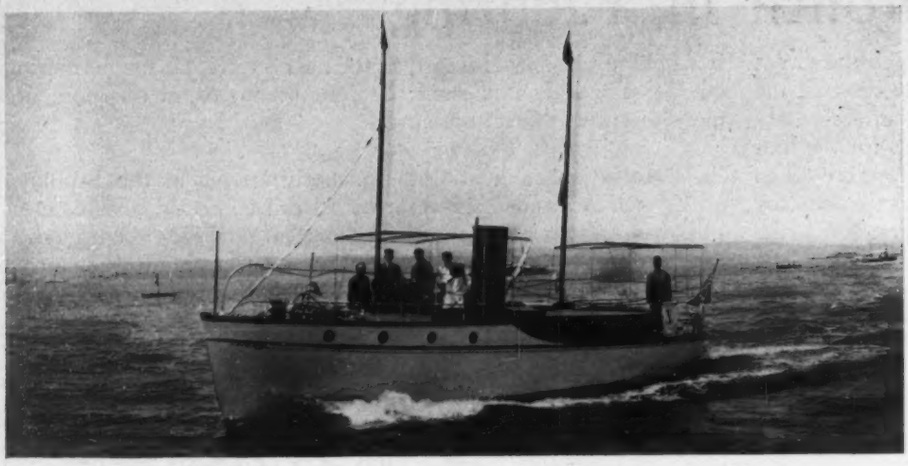
The National Yacht Club, formerly known as the Brooklyn Y. C., will be headed this year by Alfred C. Soper, and his election may mean a change in the policy that governed the organization during 1911. It is also said that a movement will be started with a view to changing the name of the organization back to the Brooklyn Yacht Club, the name under which the club was incorporated and by which it was known for years. The club is one of the oldest in the country, having been organized in 1857, and it was not until last year that the officers in control succeeded in having the name changed to the National Yacht Club. The new name, however, was not generally accepted by yachtsmen, and the club was still referred to by its old name, or if the new name was used it was qualified by an explanation. It is no easy matter to throw aside a name that has been used for years and substitute a new one for it, and the Brooklyn Yacht Club succeeded in this no better than other organizations that have tried it. The club would do well to go back to its original name.

Commodore Soper's flag will fly from the masthead of his power yacht Sim Too, a craft that became known through her participation in long distance races last season.

The matter of clearing up the clause in the Universal Measurement Rule relating to the points at which "L" shall be measured, which caused the Joyant protest last year, has not yet been settled. The New York Yacht Club has taken the initiative and appointed a committee composed of W. Butler Duncan, Jr., C. Sherman Hoyt, J. M. Macdonough, and Prof. William Hallock to recommend such changes in the present rule of measurement as seemed called for and wise, and, if necessary, to call a meeting of the Atlantic Coast yacht clubs which originally adopted the rule to pass on these changes. Most of the naval architects have been written to for an opinion in the matter, and their replies may go a long way towards clearing up the question. Up to this writing no steps have been taken towards calling a conference of the clubs which adopted the present rule.

Until this point is settled the building of racing yachts except for special racing events, will be at a standstill, though the new Class M boat for Mr. H. G. S. Noble of the New York Yacht Club will be finished and is now nearing completion at Wood's Yard, City Island. It is said that the rig would be that of a large knockabout, similar to the sloop Dorello.

There will be no conflict of important racing events among the Eastern yacht clubs this year, as the New York, Larchmont and Eastern Yacht Clubs have so arranged their schedules that the various events dovetail so as to give boat owners an opportunity to take part in them without cancelling other engagements.



SIM TOO, WHICH WILL BE THE FLAGSHIP OF THE NATIONAL Y. C. THIS YEAR.

The New York Yacht Club's annual regatta will probably be sailed in June, the Eastern Yacht Club's ocean race from New York to Marblehead will follow it up the 1st of July; and after the arrival of this fleet at Marblehead the Eastern Yacht Club's annual regatta will be sailed on July 4th. Two days later the Eastern Yacht Club's annual cruise begins, so that all the New York boats can be back in Long Island Sound waters by July 20th in time for the Larchmont Yacht Club race week, which will probably be a week later than in 1911.

After Larchmont race week is over the New York Yacht Club cruise takes place, probably in the second week of August, followed by the fall regatta of the Larchmont Yacht Club on Labor Day. This is a good schedule and will provide plenty of sport for the fleets.

DORELLO.

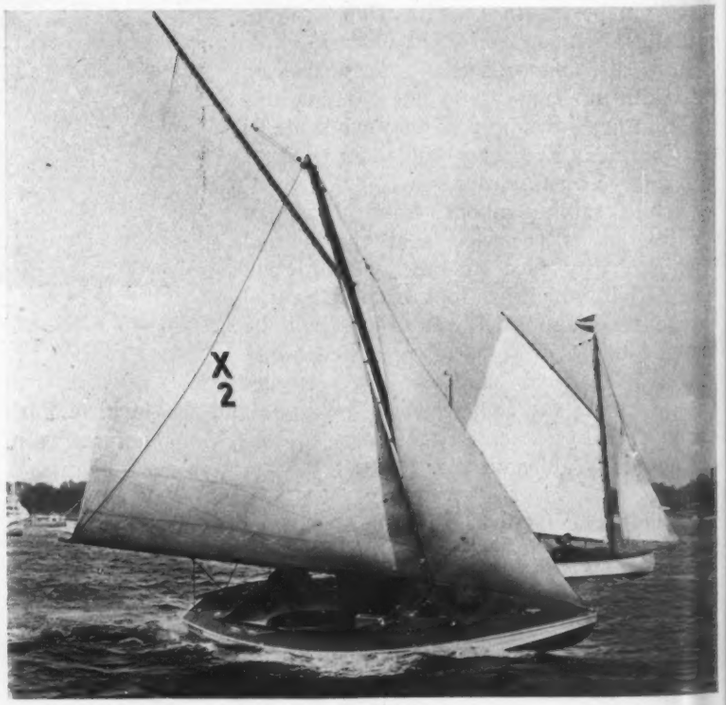
The number of one-design classes that are being built this year indicates the hold that sailboat racing still has among yacht club members, and shows that they are beginning to realize that as much sport can be had in sailing a little boat in a closely matched race, as in sailing a large one with a professional crew. Most of these boats are under 25 feet in length overall, and the impetus was given to this type by the sailing dory and yacht dinghy classes that made their advent a few years ago. It was a short step from the old Swampscott dory to the modified, decked Gravesend Bay dory, and from that to the "Bug," the small knock-about and "S" classes. There certainly seems to be no evidence of the sport of sailing dying out before the ever-growing interest in power boats.

Among the new one-design classes that are under way for the Season of 1912 is a 26-foot overall knockabout class for the Eastern Yacht Club, 21 boats of which are being built at Lawley's; a 15-foot waterline class for the Corinthian Yacht Club of Marblehead, designed by John Alden, of which there are six or seven boats being built; the Bayside "Birds" a 27-foot overall boat designed by Gardner; the little class of 20-footers for the Chicago Yacht Club about which I have already spoken and a knockabout class for the Indian Harbor Yacht Club of Greenwich, Conn. Plans of the latter class have not yet gone through, but it is expected that enough members will be found willing to build to the class to insure its formation. These boats are to be 21 feet in length overall.

It is with regret that most yachtsmen will hear of the breaking up of the noted sloop Effort formerly owned by Mr. F. M. Smith of the New York Yacht Club. It seems as if there must be something wrong with yachting when a boat hardly six years old is broken up because there is no use for her.

The Effort was built in 1906, from designs by H. J. Gielow, and immediately jumped into fame by winning the first race sailed for the King's Cup, beating such boats as Queen, Elmina, Yankee, Rainbow and the old yawl Vigilant. She was raced consistently the first few years but has not been in commission lately and has been on the market some time. Failing to find a purchaser who would use her for yachting purposes the boat was finally sold for the material in her.

Those yachtsmen who cruise southward during the Fall, Winter or early Spring will be glad to know that through the efforts of the Departments of Commerce and Labor and Coast and Geodetic Survey a series of charts has been prepared which will enable motor yachtsmen to cruise southward by means of the inside route. Heretofore adequate charts of this route have not been procurable. Excepting for that section from Beaufort, N. C., to Georgetown, S. C., a distance of only 160 miles, boats of not over 4 feet draft may make the trip entirely by the inside route. These charts may be obtained from any chart or nautical instrument dealer.




THE GRAVESEND BAY DORIES, WHICH DID MUCH TO ADD TO THE POPULARITY OF SMALL ONE-DESIGN CLASSES.

# To Baffin Land in a Motor Boat

A THOUSAND MILES ALONG THE EXPOSED LABRADOR IN A 35-FOOTER. THROUGH HUDSON'S STRAIT TO THE BAY WHERE THE GREAT NAVIGATOR LOST HIS LIFE. EXPLORING BAFFIN LAND.

PART III—THROUGH HUDSON'S STRAIT.

By J. T. ROWLAND.

NOON of the next day saw us going out through Mugford tickle once more. Though it was fairly clear now, and the wind had moderated, we met a great tumble of sea outside, especially off the points, where the tide was running strong. Our much-abused little dory, which had been dragged by the nose all the way from Harrington, had to be got alongside and bailed at frequent intervals—a delicate and not over-pleasant operation. I had her on a long painter of stout manila, with a length of chain hung out over her stern to make her tow straight, but, even so, she seemed to resent her part of the performance and hung back like a small boy from Sunday school.

After dark the wind came northeast (magnetic)—dead ahead—and it hung that way with either fog or rain all the rest of the time we were on the Atlantic coast; so that our recollections of the Labrador, between Cape Mugford and Chidley Island, are of a constant battle against the elements. Some days it would lighten up for awhile, and give us a decent run and a glimpse of the magnificent high coast and jagged peaks; and again we would have to pick our way along from point to point in a blind hit-or-miss fashion, and fight all day for a few miles' gain. The day on which we left Hebron Harbor, after vainly waiting over Sunday for a change in the weather is a good example of what we found. It is described thus in log:

"Aug. 14th, 8 A. M. Still cold, thick and rainy. Damn such weather. Separate ourselves from Hebron Harbor about 11:30 A. M. Wind N. E., light; cloudy, but no fog. Encounter hell of a tumble outside, but smash her on until about 6, when we make Anchorage Cove in Big Island, in mouth of Saglek Bay—20 miles for 8 hours' run.

Have good feed and turn in, disgusted; fog thick; cold and dreary."

We noticed that as a general thing the clouds, which hung low on the water in the form of fog in morning and evening, would rise a few hundred feet during the middle of the day under the influence of the sun's heat; but for over a week, we never saw Old Sol himself, and very rarely did the heavy vapor lift sufficiently to show the sky-line of the coast. We also passed numerous bergs drifting south; in fact so frequent were they that we finally paid them scant attention as they passed.

A curious thing happened the day that we passed Nachoak Bay, which I shall always be at a loss to explain, except as a special act of Providence. It had been reasonably clear all morning, but as we drew in upon the White Handkerchief (the grand promontory on the north side of Nachoak Bay), the clouds began to settle and it grew so thick that we had to follow the land down to the point's end by listening for the sound of the surf, as it broke upon the rocks.

On the north side of the White Handkerchief, the fog was considerably lighter; but even so, we could not see more than 150 yards. We now had a deep inlet about 15 miles wide to cross, on the north side of which was a small cluster of islands, and it was between two of these that George proposed to make harbor for the night. He said that though he had been there many times from Nachoak Bay in clear weather, he had no idea what the compass course was, but that if I could bring him to the islands on a chart course he would have no difficulty in following them up to the harbor.

Accordingly, I laid off the course as accurately as I could, on Dr. Grenfell's sketch chart of Northern Labrador, which he had kindly loaned me, and which, though only a rough draft, was far preferable to the Admiralty's efforts in this direction. The reference compass on Dr. Grenfell's chart was magnetic, which I knew perfectly well as I had been using it continually for the past few days, but, somehow, on this occasion, I absent-mindedly took its North for that of the true meridian, and applied the local correction for variation (40° West) before giving George the course at the wheel. Now comes the marvellous part: This course, which was 40° in error, brought us to the desired island, 15 miles away, as straight as a die!

This dawned upon me in the evening, and I would have given almost anything for a sight of Polaris or a planet by which to fair our compass, but that was, of course, denied. However, the courses steered next day showed that the instrument was virtually correct. Whether the Chief had thoughtlessly dropped a knife or some of his tools into the binnacle-box, and so temporarily dragged the needle 40° around, during the afternoon, or whether the circumstance was due to some local attraction of iron masses in the coast, or to a current, I do not know; but, in any case the error on my part, which proved our salvation, savored of the supernatural. "That's all right—we just naturally can't go wrong," quoth the Chief, when I confided to him.

OUR MEANS OF COMMUNICATION BETWEEN DARYL AND PELICAN WHILE BEING TOWED.

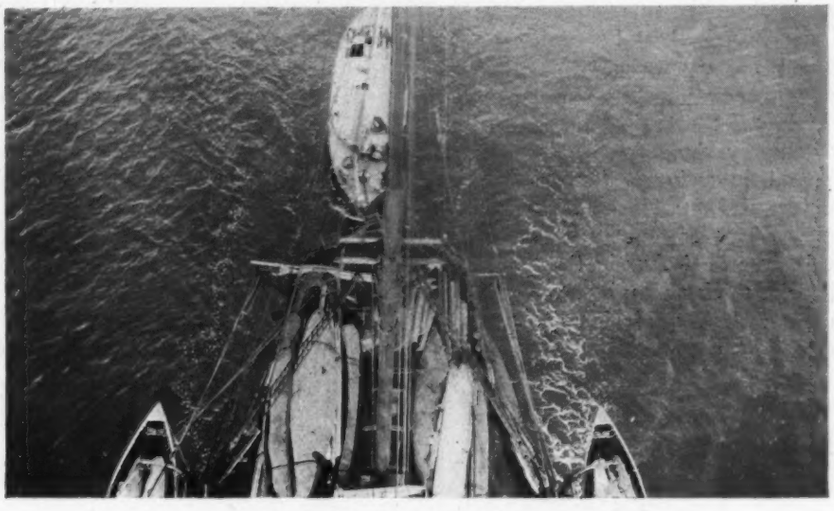
The following day was our last on the Atlantic coast. Between Cape Chidley and the mainland of Labrador is a narrow tickle some 14 miles long, named Grenfell Strait, in honor of the man who first went through for purposes of exploration. Leading from the Atlantic Ocean to Ungava Bay, this tickle made a splendid short cut for us, bound as we were up Hudson's Straits; also, it would save us an encounter with the treacherous tides and probable floe ice in Gray Strait—north of Cape Chidley. It is narrow and tortuous and Dr. Grenfell's 8-knot steamer was unable to stem the tide through; but the Doctor had told me that

KILLINEK MORAVIAN MISSION POST ON CAPE CHIDLEY ISLAND.

there were no obstructions in the way—all I needed was to keep in the middle and let her go.

We ran several hours that morning inside of a long stream of floe ice which made the water beautifully smooth. The wind was still northeast, and the drizzle was almost sleet. George and I alternated steering, and Abe had a busy life, making steaming cocoa by the gallon. Occasionally, the Chief would emerge from his lair to inquire if Cape Chidley was in sight yet, and would then go down and warm up by playing the mouth-organ to Abe and the engine.

About 1 p. m. we rounded a barren old cape with an unpronouncable Esquimo name, and there, 15 miles ahead, loomed the vague, rounded outlines of Chidley land. George and I now set ourselves to pick up some of the landmarks which Dr. Grenfell had described. The first one, a nearby island, was unmistakable, but before we got up to it, the light breeze had dropped completely, and a dense, cold fog blotted everything from sight.



THE DARYL SEEN FROM ALOFT ON THE PELICAN AS SHE WAS BEING TOWED.

Although still 30 miles or more from Cape Chidley, we had reached the region of strong tides and currents which make the entrance to Hudson's Strait dreaded by the whalers and few Newfoundland fishermen who venture this far north. I had, of course, got a compass bearing on the Chidley land, before it was lost to view, but after seeing how the tide boiled over a nasty reef which we passed quite close aboard, George and I both decided that it was futile to try to get anywhere on a compass course, and that the best thing, under the circumstances, was to bear up for the mainland and try to find some sort of a pocket in which we could lie until the morning. Several times in the next couple of hours we saw the dark loom of land through the fog, but each time it proved to be only a small island without any decent shelter.

At last, as I was beginning to wonder whether we were going to miss the coast altogether, some land much higher than the islands loomed up overhead, and a minute or two later we had run into an inlet about a mile and a half across, which was free from fog. From its trend and size, we knew that this must be either Grenfell Strait, or the Joksut Inlet, just south of the former. As darkness was almost upon us, however, the most important need we felt for the present was of a harbor. Further exploration could be postponed for a few hours.

On the north side of this inlet lay a low point with some small islands off it, and among these we anchored in a little crevice where one could toss a coin ashore on either side. Through the night we heard the ebb tide roaring like a Niagara on the other side of the point, so concluded that this must be Grenfell Strait.

Next morning a wonderful thing happened; we awoke with the sun actually shining in through the open cabin doors. From deck the view was glorious. To the west and south lay the high land of Northern Labrador, some of the peaks snow-capped and dazzling white in the level rays of the morning sun. The bay which we had crossed in the fog the day before was still shrouded in a low mist, but one saw rising above this, here and there, the summits of islands, while, from our little harbor the mirror-like waters of Joksut Inlet led for miles inland, between high, bold hills of weather-worn rock.

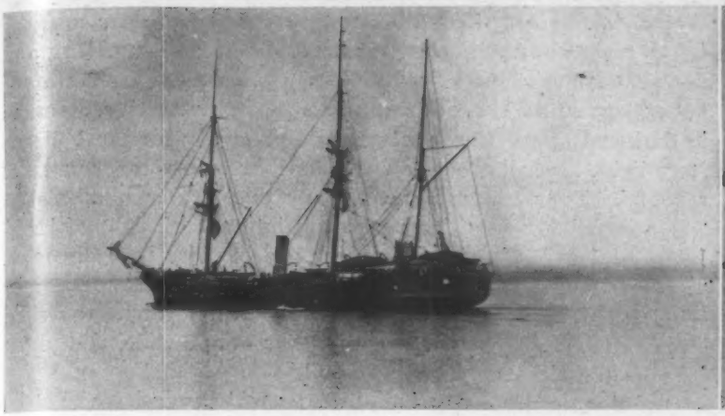
As the tide had already begun to rise, we lost no time getting under way, and running around to the north side of the low point. Here was another inlet, trending west, in which the velocity of the tide sufficed to show that we were at last upon Grenfell Strait, even had we failed to recognize the curious dome-shaped hill on the Chidley Island side and Mt. McDonald on the other. As we passed around the first turn I looked back and saw a fog-bank still hanging over the islands on the coast and inwardly thanked God we were through with it.

At about noon Daryl emerged from this curious natural canal, and we saw spread out before us the blue, inviting waters of Ungava Bay, looking for all the world like the Pacific. Little wonder that old Henry Hudson thought he had at last found the highway to Cathay when he beheld this same sea stretching west to the horizon, some 300 years ago.

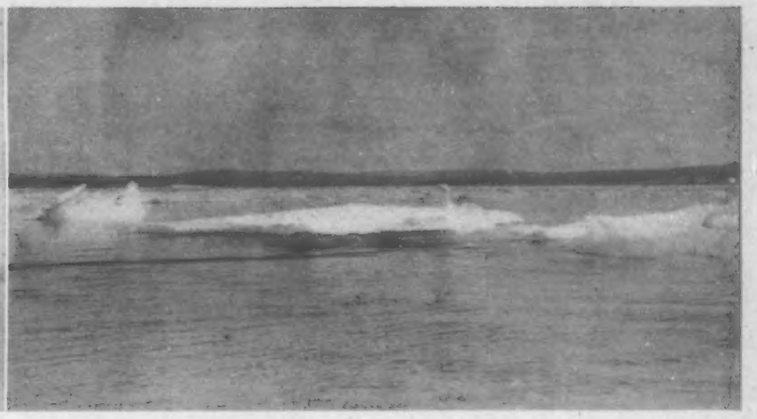
We now turned north and skirted the west shore of Chidley Island for a few miles, until a little tickle was opened out, disclosing on its shore two small red-roofed dwellings. This was Killinek, the most northerly post of the Moravian Mission to the Esquimo. A minister and a store-keeper lived here with their families.

They had not seen a white man since the preceding summer. Our coming was the more welcome from the fact that we had a sack of mail for them which had been turned over to us at one of the posts on the Labrador within the mail steamer's ra-

THEIR FIRST SIGHT OF A MOTOR BOAT. LABRADOR ESQUIMOS GOING TO SUMMER FISHING PLACES ON THE ISLANDS.



THE HUDSON BAY CO.'S STEAMER PELICAN.



A LITTLE DRIFT ICE IN HUDSON'S STRAIT.

dius of action. It was months old, but that did not seem to matter.

It was here that I had asked Captain Smith, of the Pelican to leave some oil for us, if possible. They told us, however, that nothing had been seen of the ship, so I judged that she must have rounded Cape Chidley at night and did not wish to delay. The Moravians were expecting their own supply-ship soon, however, and they offered us enough oil to fill up our tanks before starting across Ungava Bay.

"But suppose something should happen that your ship did not come," I asked, "could you spare the oil in that case?"

"Oh, she will surely come," was the answer. "Moreover, if she does not, we would not have enough to last another year anyhow, so you may as well take what you need." A sentiment which renders comment superfluous.

So it was decided to start across Ungava Bay that very afternoon while the weather was fine and the glass high. We had just finished lunch. Bob was busy grooming the motor and I was lying in my bunk writing a letter home, to leave at Killinek for the coming of their ship. The greatest venture of the voyage now faced us and all hands were more or less keyed up. Suddenly there came to our ears the familiar bass of a steamer's whistle, followed by the boom of a gun.

George was on deck. "The Pelican," he shouted, and we all tumbled out to see. There, a few miles in the offing, was a big, clumsy-looking bark-rigged steamer, standing cautiously in for Killinek, with her colors flying.

"I didn't think it like Capt. Smith to go by, after your letter sir," said George, triumphantly.

We got under way immediately and, a half-hour later, the old H. B. C. ship and the new one were drifting side by side in Ungava Bay. A most fortunate and timely meeting it proved for us, as will be shown.

The old Pelican's decks presented the chaotic appearance of a vessel laden with a general cargo beyond her hold capacity. In addition to lumber for the building of new posts her main deck carried two heavy "York boats," half again the size of the Daryl; and under the break of the high poop a season's supply of oil for us in gorgeously painted 5-gallon cans, was the first thing which met my eye. This occupied the space where the wheel had been when the Pelican was a ship of the Royal Navy some 30 years ago, but as her helmsman is no longer in danger of being struck by anything more deadly than wind and water the wheel is now located on the quarter deck, in a position from which one can see ahead over the bows.

Extra boats, canoes for the posts, crates of sheep and pigs and a motor launch made up the rest of the old ship's deck litter, which had fitted in and secured with the skill of long practice.

The formality of introductions over, Captain Smith led me aft to his cabin, and we proceeded with the aid of a couple of excellent cigars to "get together" on the situation. The Captain now gave me the first official notice which I had received that the

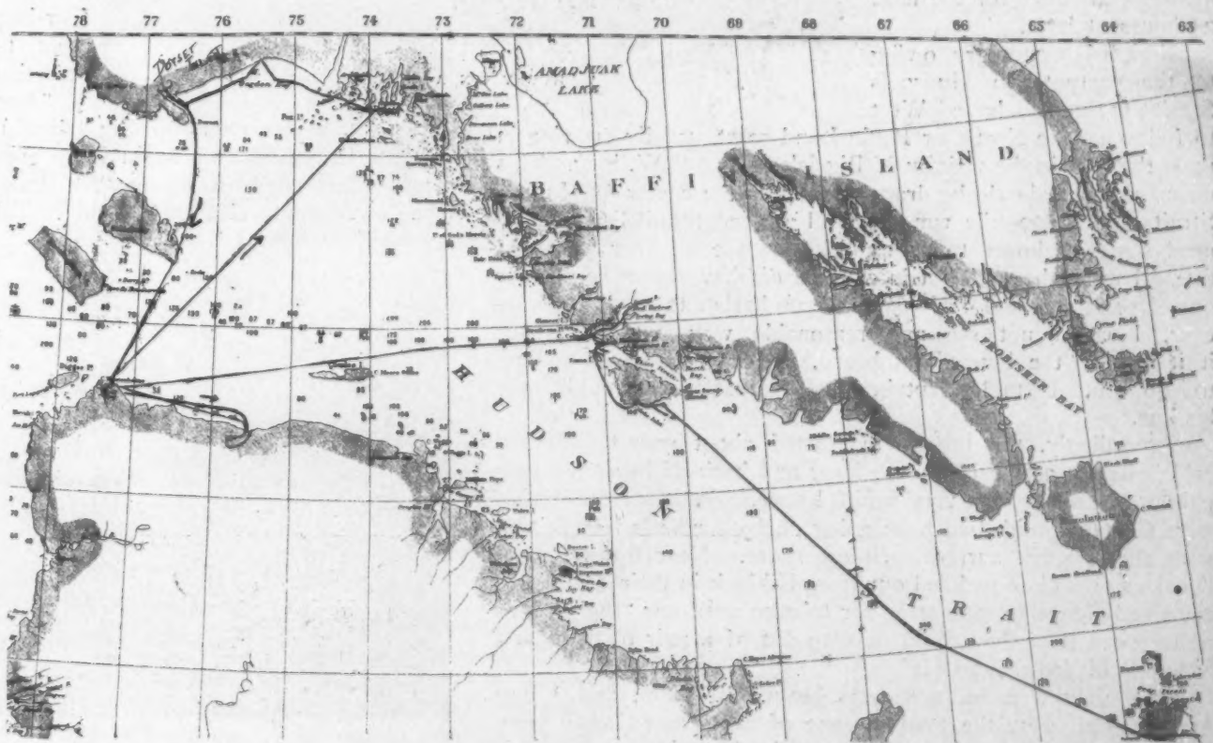



CHART OF HUDSON'S STRAIT SHOWING ROUTE OF DARYL.

THE INHOSPITABLE COAST OF BAFFIN LAND. THERE IS A 40-FOOT RISE OF TIDE ALONG THE SHORE.

Daryl was to go to Cape Wolstenholme at the extreme west end of Hudson Straits. I told him that our fuel capacity was not sufficient to carry us from Chidley to Wolstemholme if much head wind should be encountered, and that I did not relish the idea of starting on a 500-mile voyage along an absolutely uninhabited coast under such conditions.

He then suggested that he take us in tow of the Pelican for as long a distance as wind and weather might permit, pointing out that if we had to cut adrift at all, it would be with full tanks, and probably within easy power radius of Cape Wolstenholme, as there seemed every indication of moderate weather for the next 24 hours at least.

A "HUSKY" IN A KYAK.

Now it is customary, owing to the currents in Hudson's Strait for vessels bound West to follow up the North, or Baffin Land coast, usually drawing in upon the land in the vicinity of Big Island, in 70° W. long. This meant that we should be dragged out into the center of Hudson Straits for a 200-mile run, which I judged the Pelican would need some 30 hours to accomplish. If the weather remained fine, all would be well, but in case we *did* have to strike out for ourselves, there would, of course, be no harbor to run to. However, I could not see any reasonable way out, so I put it it up to "the bunch" on board, and as all seemed willing to go on, I told Captain Smith that we would take his line.

Accordingly, the procession started about sunset, Daryl a cable's length astern of the Pelican, and back of her on a long painter, the abused but very faithful dory. While my conference with Captain Smith had been going on both vessels had drifted with the Ungava current well off shore. Nevertheless, some "huskies" who had paddled out from Killinek in their skin kyaks remained alongside, clamoring for tobacco until our "tug" gained more speed than they could develop out of a pair of arms and a double bladed paddle.

The night that followed was beautifully calm, and I was greatly puzzled by the total absence of any ground swell upon a body of water the size of Hudson Straits, wide open as it is to the Atlantic on the east. However, shortly before midnight I was roused out by a great tumbling about, and stumbled up on deck expecting to have the hair blown off my head. There was not a cloud in the sky, and not a breath of air. George, shrouded in darkness at the wheel, was steering serenely for the Pelican's stern light. Yet all about us were short, breaking seas, suggesting rapids in a stream, rather than any deep water phenomenon. "This is a fine young tide rip to run into out of sight of land," I said to the Chief, whose slumbers had likewise been disturbed. "Never mind," says he, slamming in his clutch to stop the noisy spinning of the tail shaft, "the Pelican is not gaining anything on us, anyhow. We'll let that propeller drag awhile, and play a joke on the old steam Ark up front."

"If there comes any wind at all, us will surely have to strike adrift, eh, Cap'n?" queried Abe from the port transom, between dives. However, a few minutes later, the water was as smooth as glass again. I judged that these rips were explanation enough for the absence of ground swell; also that they would be mighty unhealthy to pass through when it was blowing.

(Log) "Aug. 18th—Bright dawn, beautiful day. Get good longitude sight in A. M. and compare position with Pelican by megaphone. The high north face of Akpatok Id. just visible on horizon to south. Would be drawing in upon this now had we gone across Ungava Bay as intended. Pelican slows down at noon and I go aboard at Capt. Smith's invitation for conference. Says he would like to use Daryl for some exploring along Baffin Land coast in vicinity of Big Island, and I promise him our coöperation. Stay on board for tea, so take four-hour trick at wheel that night to make up for long desertion in afternoon.

"Aug. 19th—Clear dawn. At 4 a. m. twelve miles off Big Island to S. E., White Strait, between Big Island and Baffin Land appears blocked with flow ice; scattered pans off shore. We draw in and skirt coast to Ashe Inlet (South side Big Island). Take Capt. Smith aboard

WEST ENTRANCE TO GRENFELL TICKLE.

Daryl and run up inlet, sounding for ship anchorage. It is only a deep cove a few miles in length, fair harbor, but not of sufficient width to suit. Go ashore and visit ruined dwelling, of which there is nothing left but some uprights and an old stove, no documents. Try to kill some ptarmigan with stones, but they are too quick for us."

On the way out to the Pelican again Capt. Smith said that he was anxious to investigate a fiord in Baffin Land marked on the chart as Crooks Inlet some 12 miles west of Big Island. It was still forenoon when we got back to the ship, so we set Capt. Smith on board and followed the Pelican up-shore under our own power. Bob, meantime, had played some more jokes on his motor. In a few minutes Daryl was leading the way. We passed now through stream after stream of loose floe ice, picking our way gingerly, while the old Pelican crashed ahead regardless of obstructions. Presently a thin column of smoke showed from the ship's funnel, and she had soon overhauled and passed us. Bob sighed regretfully. "They must have got kidding the old Chief," he lamented.

The Pelican had sent down her topgallant yards while on the Labrador, and depended almost entirely upon steam here in the straits, for at this time of the year the winds are extremely variable; so we never saw her under full sail; but at a distance she made a most picturesque figure as it was, with the square outline of her lower spars silhouetted against the sky while the chunky black hull forged thead through the ice.

When a couple miles out from some islands which appeared to shelter a large bay, the Pelican again came to, and waited for us to catch up. Great preparations were going on aboard. The small power launch had been hoisted out, and Mack, the husky second-mate, was busy as a wet hen getting fittings and supplies into her, and worrying as to whether or not she would start. The Captain himself came aboard us, thereby showing his superior judgment. A patent sounding machine was hastily fitted to Daryl's stern, and we were off.

The rest of the day was spent exploring the bay which we had come to, but which from its shape, we soon discovered was not the one we were after. When night came the Pelican had drawn so far off shore, in charge of her first officer, that Capt. Smith decided to remain with us for the night, and follow the coast west with both launches next morning. Soon Abe was busy concocting the champion feed of the voyage, while some of the fellows scrambled over the hills in search of the elusive ptarmigan. The shores echoed with their enthusiastic efforts, but I failed to recall eating any birds. Nevertheless the dinner proved a success, and with ten hearty sailormen stowed in our tiny cabin, we certainly had a jovial evening, even if it was somewhat snug.

SOME BAFFIN LAND BEAUTIES.

EXPLORING ASH INLET, BAFFIN LAND.

CAPT. SMITH AND SOME OFFICERS OF THE PELICAN ON BOARD DARYL.

THE CHIEF PLAYS THE FACE ORGAN.

THE PELICAN CROSSING HUDSON'S STRAIT.

Capt. Smith was the first one awake next morning, and roused us out in true deep-sea fashion by pounding on the cabin top, and shouting at the top of his lungs, "Lay on deck, the watch."

(Log) "Daylight start. We go West through islands still hunting for Crook's Inlet. Find what Capt. Smith says is it, but it fails to agree with the chart in either trend or shape, though God knows that is no proof either way up here. Pass through string of drift ice and see numerous seals disporting themselves in the frigid wetness and enjoying warm sun baths on cakes of ice. Capt. Smith runs us aground up at head of Bay; large but suppressed amusement on part of Daryl's crew. We kedge off and beat it for Pelican in p. m. with other motor boat in tow."

Joining the ship just as evening was coming on I looked forward to another anxious night at the end of a long hawser. It had become overcast in the afternoon, with a falling glass, and looked as though the good weather was at an end. But I think that Capt. Smith must have come to have a fatherly feeling for us in the few days we had been together; at any rate, he had Daryl hauled up close under the old Pelican's stern, with a line from each quarter to hold her steady and a big fender on her bow. Then Mack rigged a ladder over the ship's stern to our bow, and a cordial invitation was extended to "come aboard if it got too nasty back there."

(Log) "Bob and I visit ship in evening, and enjoy the hospitality of the ward room, then down the ladder into the rat-hole for some winks." That was our first undisturbed and care-free night's rest on the Daryl for a long time.

Next morning surprised us most pleasantly by being fine and clear. Despite a bright sun however, it was

cool enough to make a good heavy sweater comfortable. The stillness of the water and the alternate streaks of breeze and calm upon its surface, made me think of little old Long Island Sound, and I found it hard to realize how far we had come from home latitudes. After all, salt water looks about the same the world over.

In the afternoon Bob and Mack held an autopsy upon the engine of the Pelican's little launch. I happened to be aloft at the time, studying the distant Ungava Land from the Pelican's crows nest, but came down immediately to see the fun, as the Chief's artistic method of handling refractory engines had become the joy of my existence. Arriving on deck, or rather on top of the pigsty, I gathered that the trouble had been located in the magneto, which the Chief was very desirous of testing out. "Why not spin it on the grind-stone," I suggested with sudden inspiration. "It's easier than cranking the little bunch of junk there."

Accordingly, the magneto and necessary wiring with spark plug attached were carried over. I held the magneto so that the drive wheel would bear against the rim of the grind-stone, and as Bob was climbing over some lumber with the spark plug in his hand Mack caught hold of the crank of the grind-stone and gave it a few brisk revolutions; whereupon the Chief suddenly executed an impromtu war dance to the delight of all hands. "My mistake, that's a damn potent magneto," he declared, and went back to dissect the timing apparatus to find the trouble.

By evening we were skirting the Ungava coast, having crossed back diagonally from Baffin Land to the south side of the Straits. All one could see in the night was that we had a high, straight shore quite close aboard. There appeared to be numerous small gulches and coves, but nothing in the nature of a harbor. At length, about 11 o'clock, we came abeam of a slight promontory with a triangular snow patch on its eastern side. "That's the sign," said Mack. "Erick Cove and the post are just the other side of that headland."

We soon had the cove opened out, but it was rather too dark to attempt taking the ship into her anchorage, and all our rockets and blowing failed to make any guiding light appear at the post. At this juncture, wishing as usual to render the Daryl of service, I volunteered to go up ahead of the ship and sound out an anchorage.

"Go straight in until you get 17 fathoms, then anchor and show a light and I will come up to you," said Capt. Smith.

The third mate of the Pelican came aboard of us with a sounding line; we cast off from the ship's stern and started inshore. When we had gone about a quarter of a mile a whaleboat full of men suddenly loomed up ahead. They began to back-water furiously on seeing us, and from their excited jabber we knew they were natives before we could see them clearly.

"That's lucky" says George, "we can get a pilot."

"Tell 'em to come alongside," said I, as Daryl slowed down. Followed an enthusiastic conversation between George and the "huskies" during which the latter kept at a respectful distance, despite my efforts to work alongside of their boat.

Abe, watching the performance with evident amusement, approached me with an air of one about to impart a weighty confidence: "They're a scairt of us, sir, sure," said he. "All right, Abe, tell the Chief to go ahead—now stand by." A quick turn of the wheel and we knocked into the whaleboat. "Now grab one, damn it," I ordered, "we can't wait all night." The "husky" in the bow of the boat was the victim; George and Abe quickly transferred him to our forward deck and Daryl went on her way rejoicing.

Presently I asked the "third" if it wasn't about time to try for the bottom. "No need of it," quoth he, "it's deep water right up to the beach. We'd best rouse our Parsons (the factor) first, and then come back and locate the ship's anchorage."

Now the fact was that the third mate had never been in Erick Cove before, and was somewhat in error, because at low tide (which it now was), there is a shelf with only a couple of feet of water over it extending for 200 yards or so out from the beach. It also happened that the Esquimo "pilot" was himself a stranger to Erick Cove, having only arrived there the day before. George admitted afterwards that the man had told him this, but that it had not occurred to him to tell me. Being myself quite blissfully ignorant of the true state of affairs I agreed to do as the "third" desired, and run in for Parson's first. However, the laws of physics prevented. Before we were able to discern any land ahead at all, the Daryl suddenly took a leap as if a whale had risen under her, and stopped dead.

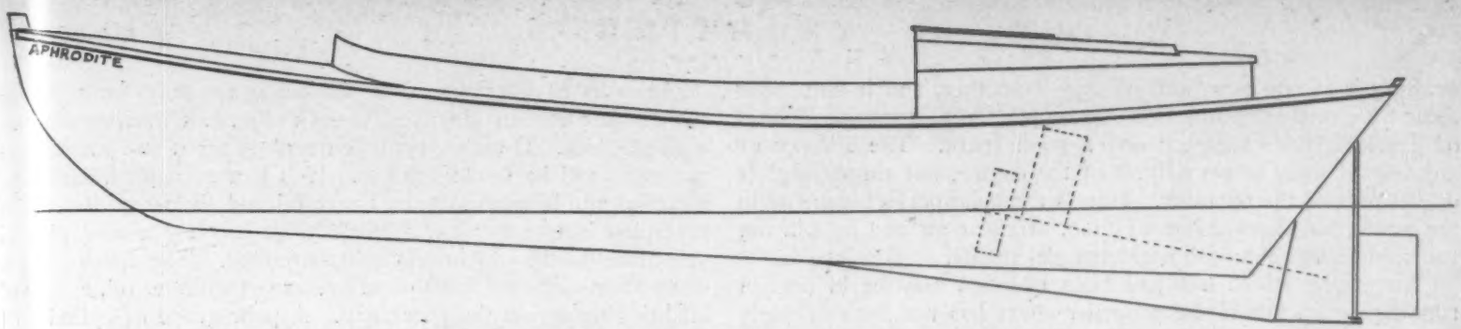
The impact threw me up onto the cabin top; and the pilot being the nearest thing to land, I proceeded to lighten ship with him, but unfortunately he collided with George on the way, which prevented his taking the first bath of his lifetime. Lurid language, very poorly muffled, exuded through every crack and pore of the engine room. The Chief later explained that he had sat forcibly on the spout of an oil can, but with his usual presence of mind, he instantly threw in the reverse lever; and since the Daryl's bow was pointing upwards at a sharp angle, she slid off stern first none the worse for the adventure, thanks to a heavy keel and iron shoe.

However, the Chief's mellifluous language awoke an answering emotion in my own soul, as the amateurishness of our manoeuvers bore home upon me. "Two pilots and a ship's officer on board, and we run her slap up out of the water, on the beach like a bunch of Coney Island chowder artists!" I bubbled. "Now damn ye, get up there and work that lead as if the line burned your fingers!" The Chief, hearing, grinned encouragement from his oily lair; and by the time we got back to 17 fath, George and the "third" both had cramps in their arms.

We burned a flare, and the Pelican drew in. "What water have you?" calls Capt. Smith. "Seventeen fathoms, sir, and shoaling rapidly inshore." "Let go," bellows the old man, and the Pelican's chain runs out with the roar of a gattling gun. "Come alongside Daryl, that's all tonight." As fate would have it, our misadventure leaked out through Parsons, who came aboard the Pelican soon after and asked Capt. Smith whether the thing he had astern was a boat, or some kind of sea-going automobile. Evidently we had managed to "rouse him out."

The arrival at Cape Wolstenholme (Erick Cove) and our spectacular delivery of the Daryl to Factor Parsons on his front lawn fulfilled our service to Dr. Grenfell, and it was a great relief to feel that whatever might befall the boat hereafter, her blood would not be upon my head. Thanks largely to the Chief's unremitting zeal and mechanical genius we had even been able to deliver her in better condition than when we had received her, in spite of over a month of almost continuous running through all kinds of "lop." The Daryl was now in fact, at the very top notch of efficiency, being able to make a speed of 8 knots when not towing the dory, her Mietz and Weiss engine burning slightly less than the regular pint per H. P.-hour of kerosene.

On the afternoon of Aug. 23rd, the Pelican sailed for Fort Churchill, the main H. B. Co's post on the west side of Hudson Bay. But before leaving, Capt. Smith suggested to me that if we felt so inclined we might put in the two weeks likely to elapse before his return by crossing back to Baffin Land and exploring the coast for a suitable harbor upon which to establish a new post. But that is a story in itself.




APHRODITE, A 25-FOOT OPEN DORY LAUNCH, AS SHE WAS ORIGINALLY.

# Adding a Cabin to a 25-Foot Open Launch

BEING the owner of the 25x7-foot lap streak, open dory Aphrodite, of Medford, Mass., I desired to add a raised deck cabin, to give me some cruising accommodations. As many owners of small boats would like to make such a change in their craft, and as it is entirely practicable, they may be interested in hearing how I accomplished it.

This cabin was to be 12 feet long, the side boards being 14 inches at the bow, running to 17½ inches wide at the end of the cabin.

The forward and the side decks were first ripped off and the stem spliced to the proper height. New ribs were then fastened alongside of the old ones, and carried up to the proper height of the new cabin. Ash, steam-bent carlines were used for the roof, spaced 10 inches on centers, with a 9-inch crown.

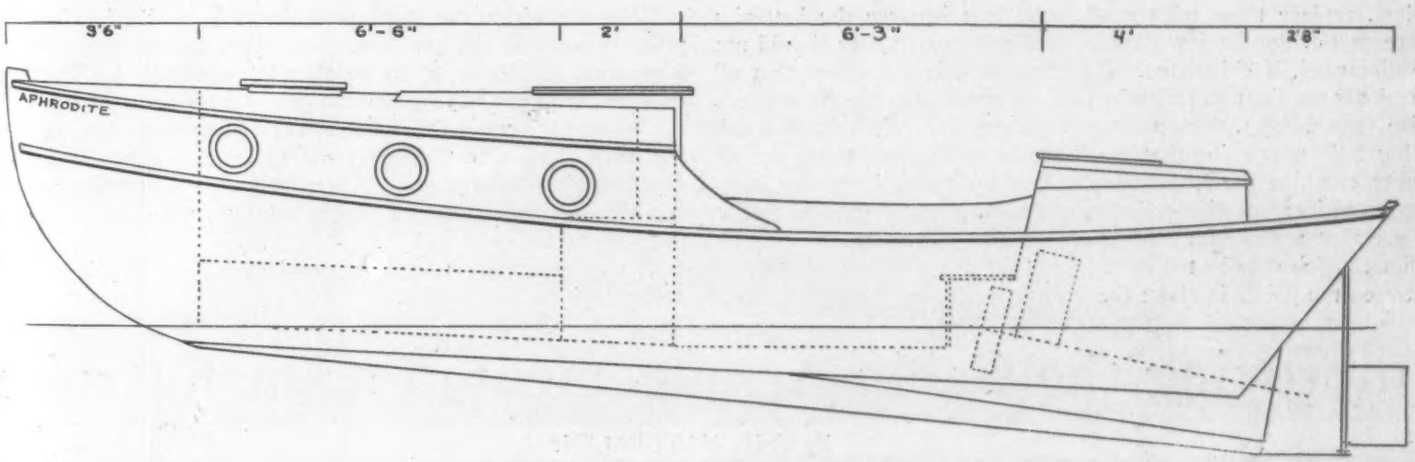
The companionway is in the center. Next to the bulkhead, on one side, is a stove space, while there is a closet opposite on the other side. A berth on either side takes up the remaining space, while the extreme bow contains a locker. Drawers will be built in under the berths.

There was formerly a good sized cabin at the stern over the engine. This I cut back about 2 feet to the cylinder, and the flywheel now projects under a cross seat. The center of this seat is removable for starting the engine.

With awning and side curtains over the cockpit she makes a very comfortable little cruiser. Her bow was quite high to begin with, having a freeboard of 3 feet at that point, and with the new cabin board, she now has about 4 feet 2 inches.

A new keel running the entire length of the bottom will be bolted on below the old one.

N. L. LANDERS.




APHRODITE, AFTER THE CABIN HAD BEEN ADDED.

# Why Gasolene Engines Sometimes Balk

SELDOM THE FAULT OF THE ENGINE. IMPROPER INSTALLATION AND LACK OF ATTENTION THE CHIEF REASONS. WHAT THE VARIOUS SYMPTOMS MEAN.

By C. VON CULIN.

WHEN an engine will not start there is always a reason for it, and the first thing to do is to try to find the cause of the trouble.

"But," some one will say, "I thought the gasolene engine is so perfect and simple, that it will always start, and that all that is necessary is to rock the flywheel, turn it over, bring it up against the compression, and push a button. Now you say that it is possible for it to balk or to get out of working order."

All reliable gas engines, if properly installed and cared for, are always ready to run and will run if allowed to. While the gas engine is a simple machine, there are several conditions which must be right if the engine is to run properly. There is no pretention that a gasolene engine is perpetual motion, or that it has brains, although we do talk of the heart and lungs of the motor. It may not have ears, though it does kick back sometimes when not getting proper attention. It does talk, and by its every action warns the careful observer of its needs or neglect.

It is a common thing to hear an operator talk to his engine,

praising it at one time, and cussing it another, and it does need some little attention, as it must be supplied with a proper amount of gasolene, lubricating oil and a good spark. The absence of any one of these is not a fault of the engine, but simply neglect on the part of the operator. Man is the most perfect machine in the world, but deprive him of food, drink or air and he will not work any better than the neglected gas engine.

An engine which has just been installed may be in perfect running order, but if the propeller shaft has not been properly aligned, the friction at the stuffing box may be sufficient to prevent the engine from starting. Often an engine which has worked perfectly in the boat before it was launched, will require re-alignment of shaft afterwards, owing to the change in the set of the boat in the water.

In the case of such a trouble as the engine failing to start as easily as it did before launching, disconnect the propeller shaft from the engine. If the engine runs as before, the cause is imperfect alignment. When the shaft is in perfect alignment and the stuffing box is properly adjusted, the engine should turn over almost as easily as if disconnected. A large proportion of engine troubles can be traced to faulty installation and alignment of propeller shaft. It is now possible to get a universal coupling which will automatically keep the shaft in alignment.

When the engine has been properly installed and will not start, look to every detail of the ignition system. Engine failures are due principally to ignition troubles although the trouble at bottom may be traced to other causes, which in some way affect the ignition.

Test the batteries. If they are run down to ten amperes or below, replace them with good ones. Just because the batteries were new or good a few days before is no reason they should not be discarded, if exhausted. Examine all wiring and see that all terminals are tight and all wires out of water, that the jump spark wire (secondary), does not touch the engine. With jump spark using coil (presuming that the batteries, wiring and timer are all right) examine the spark plugs. Test each plug by laying it on the top of its respective cylinder, and turn over the flywheel slowly to see that a good fat blue spark is had. Examine the contact points, which may be too close or too far apart. The usual space between the points is about the thickness of a ten-cent piece.

In order to determine if the fault is in the plug, try adjusting the vibrator of the coil leading to each plug, first washing the plug with gasolene. If necessary, take the plugs apart and possibly the porcelain will be found cracked. If it is a mica plug, it may be loosened and become saturated with oil and short-circuited. The best plan is to carry extra spark plugs and try a new plug to determine if the old one is short-circuited. The spark plug is often short-circuited from excessive use of cylinder oil, a drop of oil bridging across the spark gap. A poor grade of cylinder oil often gives lots of trouble.

Examine the platinum points on vibrator of spark coil before readjusting. If pitted, smooth off with a fine file or sandpaper, adjust just tight enough to give a good working spark and no more. The tighter the platinum points are adjusted the more quickly will the batteries be used and the quicker the points will pit.

Should the trouble not be found, look to the timer; clean it thoroughly, as possibly some parts may be worn out, loosened and short-circuited. There may be a weak spring of one or more of the contact points; the spool, roller, or knife of timer may be worn or slipped; the insulation of timer loosened, worn or saturated with oil; or the pin in the timer shaft or gear may be broken.

With multiple-cylinder engines make sure that the high tension wires from coil to plugs are leading to the right cylinder. Lay each plug on the top of its cylinder and see that the spark is made when each piston is at the top of the cylinder. This can be ascertained by inserting through the spark plug opening a long lead pencil or clean stick as you slowly turn over the flywheel. Do not hold your face near the spark plug opening when testing the plugs in this way.

Wet deposit on the spark plug shows excessive lubrication or possibly water in the gasolene. Dry black deposit shows too rich a mixture. While these two troubles are not really ignition faults, they certainly can put the ignition out of business.

When the engine slows down, back fires, and stops, repeating the same thing after being started again, look for carburetor or gasolene pipe obstructions. When the engine stops abruptly, look for a break in ground wire, loose terminals or corroded binding posts on batteries or switch.

Irregular missing may be caused by the timer slipping, sticking valves or loose connection.

# Improving the Cabin Arrangement of a Small Cruiser

By F. R. WATERMAN.

THE readers of YACHTING may remember in the November and December issues an article on the building of the 27x7-foot V-bottom raised-deck cruiser Margie M. After living aboard this boat practically all summer, we found that we could change the interior arrangement of the cabin so as to make it much more convenient.

It is a good plan for anyone building a cabin boat, not to finish the cabin entirely, until he has used it, when he can tell better what is really needed.

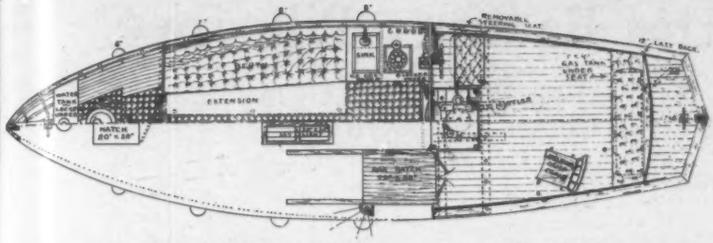
I found that lack of headroom was the main drawback, as it is in all small cabin boats. We helped this considerably by changing the companionway to the center of the cabin house and making it as wide as the cabin floor, which is 29 inches. This enables one to stand up straight while at the sink, stove, ice-chest, and closet on the starboard side or at the buffet and dish closet on the port side, all these, as the plan shows, being next to the bulkhead. Fore and aft the opening in the roof is 30 inches, or 3 carlins.

The runs for the new companionway are 6 inches high at the bulkhead end, tapering to 4 inches at forward end. This gives us headroom under the slide when it is closed. With headroom at the companionway, at the skylight, and a hatch in the toilet room, we were pretty well fixed in this respect. The frames to all these openings where the carlins were cut off are 1¾ inches thick, oak, so after the carlins are fastened into these frames, I didn't find that it weakened the boat any.

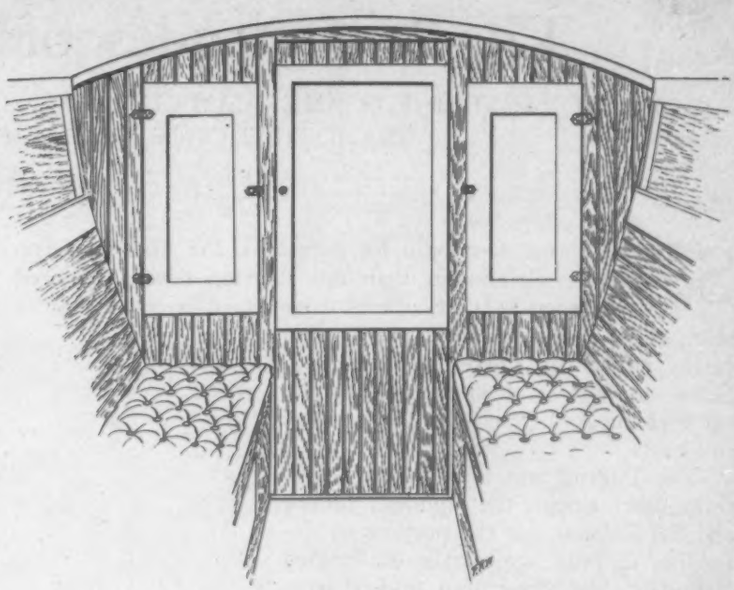
Two removable steps were made to enter the cabin, the lower step being hinged and held in position by a chain, so that anyone working at the sink can fold this bottom step up, out of the way.

On the port side, where we had the companionway, I have put in a buffet, and as this didn't take all the space to the bulkhead, it left 10 inches for shelves, with a closet under for batteries, coil, tools, camera, etc.

I made the buffet out of a small, well-made mahogany dresser which I had and which fitted the space, after filling in back caused by the flare of the boat's side. This buffet has two drawers and two closets under.



CABIN PLAN OF THE MARGIE M BEFORE ALTERATION.



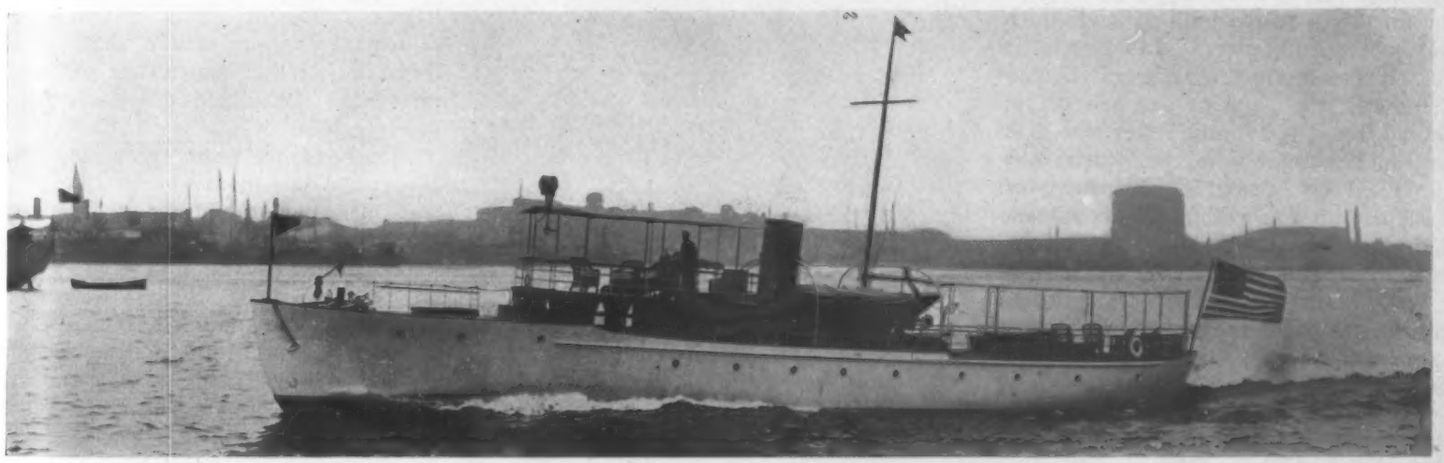
SKETCH OF THE LOCKERS WHICH WERE ADDED, AND DOOR TO TOILET ROOM.

I got two large, deep drawers under each berth in the cabin by carefully taking apart a large dresser we had, and using all the parts possible. Taking the runs for the drawers and fastening them under the berths, was an easy matter. These drawers kept anything put in them free from dampness, as no part of them came anywhere near the outside of the boat. The two drawers toward the bow had to be tapered 3 inches on account of the shape of the boat in the forward sections.

I also put in two corner clothes closets by building a tight partition in the toilet room, from the door jamb across at an angle of about 45 degrees to the side of the boat. This fills in these two corners, and makes a very roomy closet. Instead of having the doors to these closets open into the toilet room, I took the ends of the large dresser, which were paneled, and used them for doors, placing them over the berths, opening into the cabin. (See sketch.)

On the toilet room door is a large mirror, and with the panel doors each side, in mahogany and white, it made a very pretty effect. The toilet room was also finished entirely in white enamel.

The box in the cockpit over the engine can be used as a bridge deck, as the steering wheel is next to the door, within easy reach.



105-FOOT POWER CRUISER HEATHER, EQUIPPED WITH TWO 6-CYLINDER STANDARD ENGINES, 300-H. P. EACH. DESIGNED BY MORGAN BARNEY.

# The Vicissitudes of the Famous Pilgrim

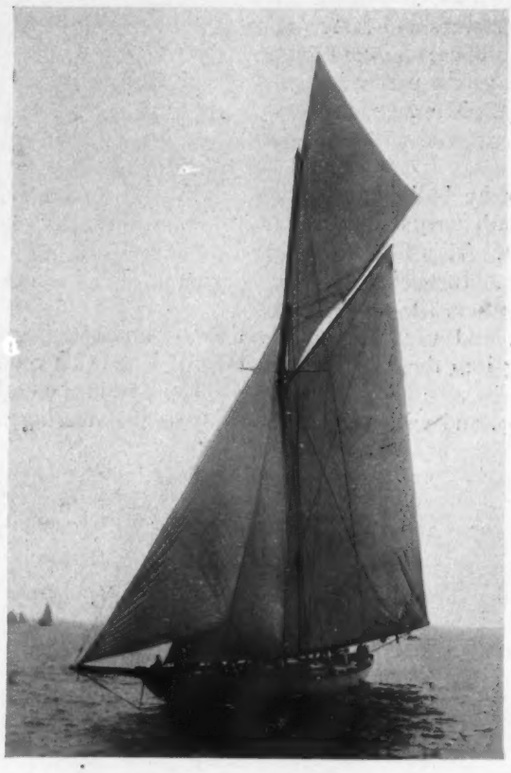
FROM A CONTENDER FOR AMERICA'S CUP DEFENSE TO A GASOLENE FISHERMAN IS THE STORY OF A CRAFT THAT ONCE HELD THE ATTENTION OF THE NATION.

By GEORGE STORY HUDSON.

SELDOM has a sloop built for defense of the America's Cup seen more vicissitudes than the Pilgrim, now a motored craft engaged in the Southern fisheries. This yacht, before being equipped with gasolene, was a steam yacht luxuriously fitted and furnished. Since the days of steam installation she has been knocked from pillar to post most ruthlessly.

The Pilgrim was built in 1893 with three other sloops, the Vigilant, Jubilee and the Colonia, for the purpose of defending the cup against the challenging Valkyrie. She was a deep, fin-keel boat, radical in model, and was designed by Stewart & Binney and constructed by the the Pusey & Jones Shipbuilding Company, at Wilmington, Del. Her general dimensions were, 124 feet in length overall, 85.25 feet waterline, 23 feet beam and 22.5 feet draft. At the bottom of the fin was a 10-ton bulb of lead which was subsequently increased to 16 tons.

After an interesting series of elimination races, the Vigilant was selected to defend the trophy and, after she had been laid up some time, the Pilgrim was purchased by Lamont G. Burnham, of Boston, who was willing to experiment with the craft as a steamer. The fin was cut off and with it went the ballast, a skeg was added and other alterations carried out to fit the vessel to new requirements. Two engines were installed and Mr. Burnham had a house mark emblazoned on her funnel. She was used successfully between Boston and Mr. Burnham's summer place on the Essex River, Massachusetts, until her owner's death some time later.



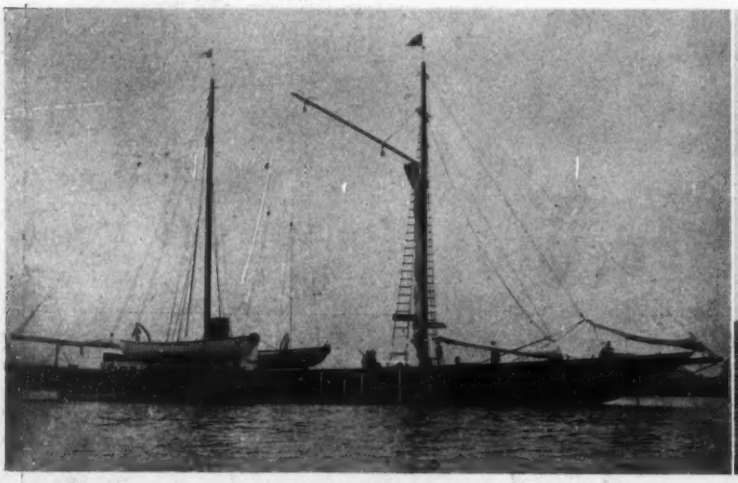
THE PILGRIM AS WAS WHEN SHE SOUGHT CUP DEFENSE HONORS IN 1893.

The yacht was now laid up in charge of a caretaker and her mahogany structure kept carefully polished for a long time. Years later, when the Boston Floating Hospital steamer was in need of machinery, Mrs. Burnham gave the power plant of the Pilgrim to that vessel, where it is now doing service moving the hospital at the rate of about four miles an hour, which is considered an excellent performance when the bulk of the ship is considered.

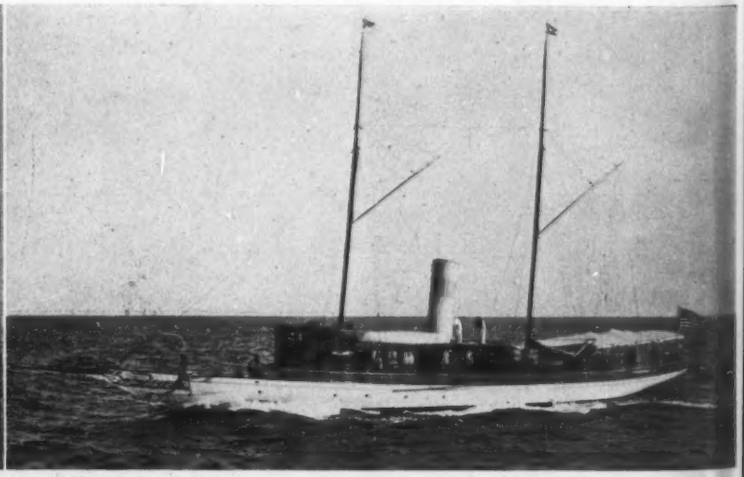
With engines removed and much of her interior gutted the Pilgrim was then placed out of commission at a bridge in Boston, where her top-hamper speedily went to ruin. Nobody appeared to have interest in the yacht—boys used the pilot house for play cruising, and river pirates went through the hull till nothing worth lifting remained. This condition obtained till the once stately sloop became a mass of weather-beaten steel and wood, her masts shaky and gray,—altogether disreputable.

Two or three years ago a man came along who saw money in the Pilgrim as a gasolene tank supply boat. Evidently he banked on the Pilgrim's history to make her worth while. She was hauled out and inspected. Repairs were made and the gas man and his wife made their home in the renovated deckhouse after tanks had been fitted below. The Pilgrim was towed to Marblehead harbor, but she did not hang to a

(Continued on page 273)

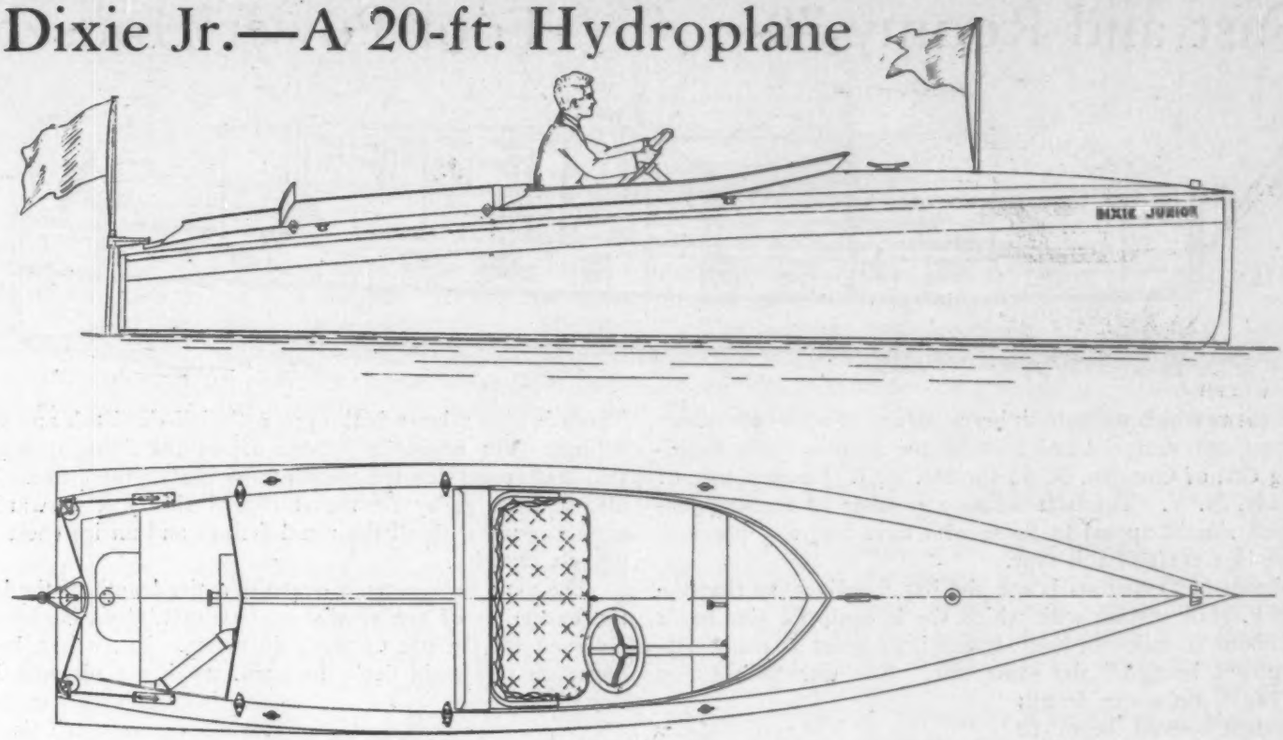


NOW AN UP-TO-DATE FISHING CRAFT WITH TWO 4-CYL. GASOLENE MOTORS, ENGAGED IN RESEARCH WORK.



WITH FIN CUT OFF AND ENGINES INSTALLED, SHE WAS A STEAM YACHT FOR MANY YEARS.

# Dixie Jr.—A 20-ft. Hydroplane




REALIZING at the close of the 1911 season, that the hydroplane for speed purposes had come to stay, Tams, Lemoine and Crane, naval architects, and designers of Dixie IV (and all the other Dixies, in fact), turned their attention to developing a stock, high-speed hydroplane of a size that would meet the demands of those desiring to enter this branch of the sport.

The result is the little 20-footer Dixie, Jr., the plans of which we reproduce herewith. This wonderful little craft is 20 feet long overall, and 4 feet 6 inches beam, and with a 45-65-H.P. Sterling engine, a speed of 35 miles an hour is *guaranteed*. This speed for a 20-footer of stock design seems almost incredible, and would be, in any craft but a hydroplane.

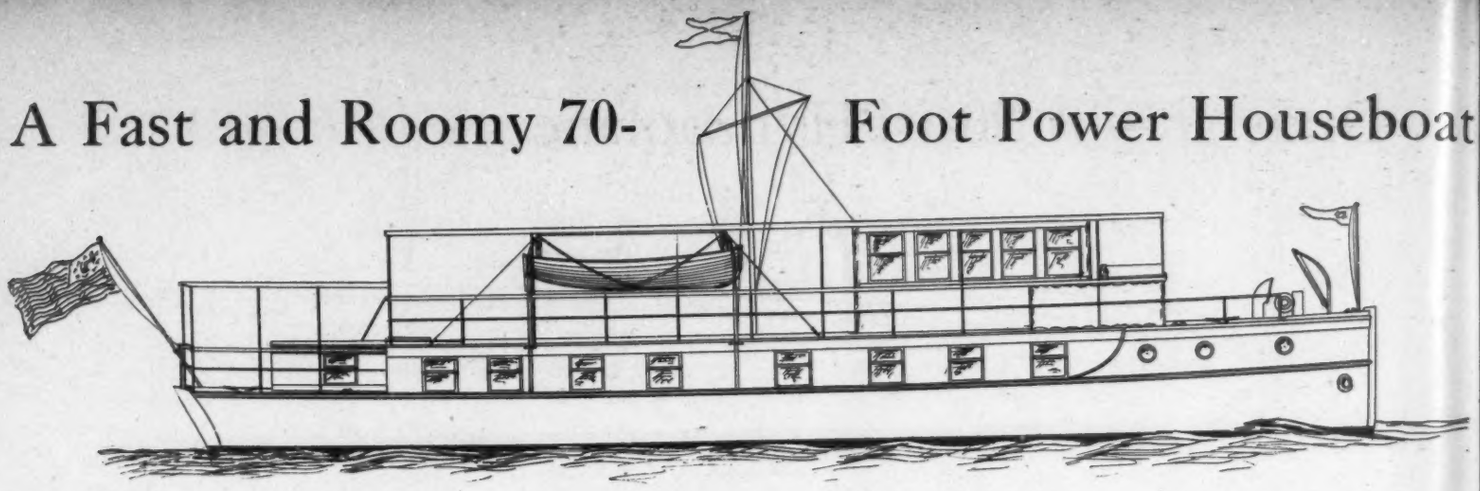
In Dixie, Jr., the latest creation of this firm, no expense has been spared to make her an even more remarkable craft than her recent predecessors. Under Mr. Crane's supervision exhaustive tests were made last fall and winter in the official Government testing tank at Washington, and the results are absolutely certain. Strength was not sacrificed to attain speed and the construction is substantial throughout. So certain are its designers that the boat will do all that is claimed for it, that they are being sold with the understanding that they make their speed or can be returned.

The arrangement has been carefully worked out. Forward is a small turtle-back deck, with the helmsman's cockpit directly aft of it, in which are two comfortable seats. The throttle, clutch, and spark levers are arranged as in an automobile and insure perfect control by the driver at all times. Aft of the cockpit is the engine compartment the motor being covered by a hinged hood which makes all parts accessible. The engineer's cockpit is abaft the motor, and is followed by a small deck with a seat for the engineer. The helmsman's seat being forward of the motor, he thus escapes the objectionable noises and gases. The flare forward is sufficient to throw the spray well aft, insuring the helmsman a dry, comfortable seat.

A feature of this little boat is that it can be carried in the davits of yachts of comparatively small size. It makes an ideal little craft for quick work and may be used on water for the same purposes as would an automobile on land.

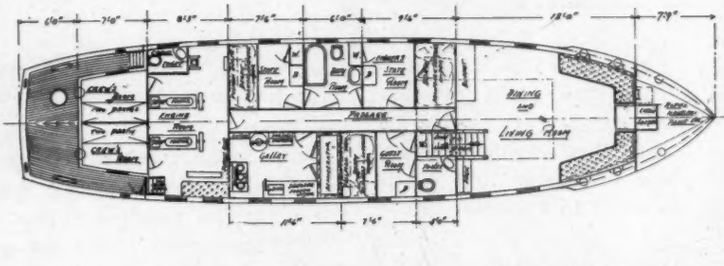
TEN DIXIE JR.'S UNDER CONSTRUCTION AT STATEN ISLAND SHIPBUILDING CO.

# A Fast and Roomy 70-Foot Power Houseboat



THE plans which we publish herewith are of a 70-foot power houseboat, designed and built by the Mathis Yacht Building Co., of Camden, N. J., for Mr. A. J. Quackenbush, of Schenectady, N. Y. The boat shows a number of unusual features which should appeal to those who have had any previous experience in a craft of this type.

In spite of her generous beam, she has fine lines, so that the two 25-H.P. Hall engines with which she is equipped give her a speed of about 10 miles an hour, which is as great as many out-and-out power boats of the same size. She was built to go through canal locks, her length being 70 feet overall, beam 18 feet, with a draft of not over 27 inches, the latter dimension making her an ideal boat for Southern waters. This shoal draft is possible by the use of a tunnelled stern similar to the other houseboats which this firm has built within the last few years.



The accommodations are unusually roomy, there being a large forward saloon 18 feet in length and the full width of the boat, which can be divided into sleeping apartments, and in addition three large staterooms with double built-in berths, above which are folding Pullman berths. There is also a large bathroom with full-sized tub and the usual fittings. The engine is located aft of the living quarters, with two staterooms for the crew aft of the engine space. There is also a large galley on the starboard side just forward of the engine room, with all the usual fittings and an ice chest of 1,500 pounds capacity.

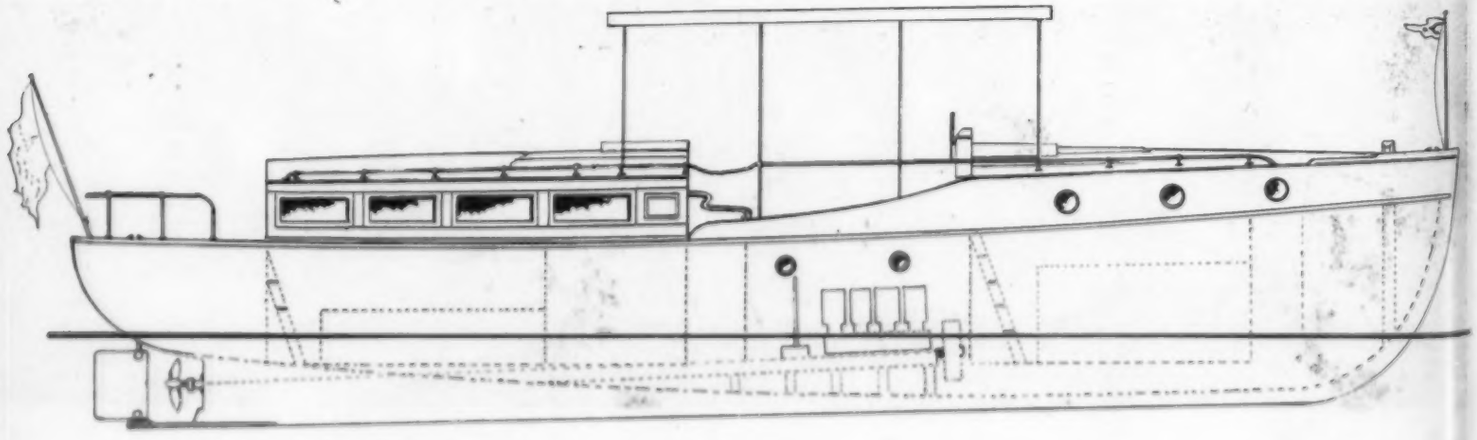
The main deck extends over the entire length of the boat with the exception of the crew's quarters aft, the after deck being reserved for the use of the paid hands. There is a large deck house on this main deck, forward, making a pleasont lounging or smoking room for the owner and his guests. This deck is covered by a permanent awning on stanchions. The boat is well lighted by large plate-glass windows on either side, over which storm shutters can be fitted for use in rough water.

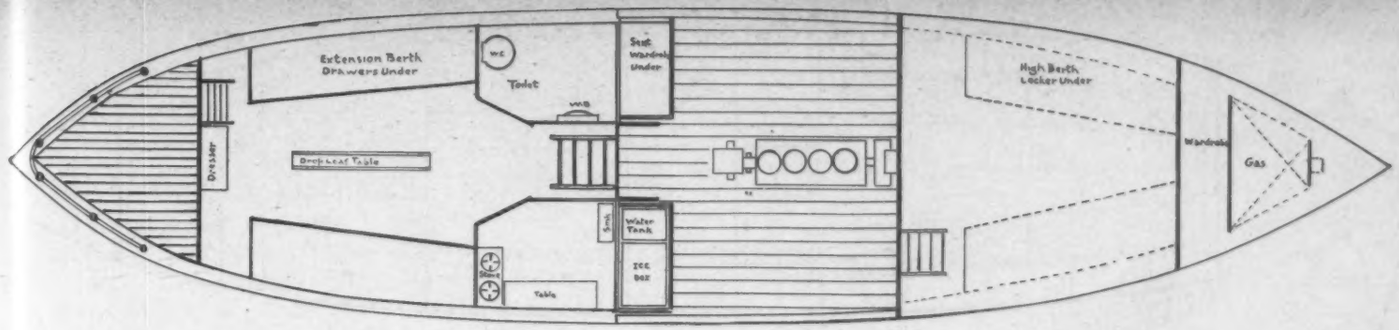
She is heated throughout by a hot-water system, with pressed steel radiators in each room. A complete electric lighting plant is also installed. There is a tank capacity of 900 gallons of fresh water and 400 gallons of gasolene, giving her a wide cruising radius. She is an ideal boat for inland cruising, for the Great Lakes or Southern waters.

# A 40-Foot Bridge Deck Cruiser

THE plans of the 40-foot bridge deck cruiser which we publish herewith are of a boat recently built by the Tarrytown Boat Works, Tarrytown, N. Y., and show an uncommonly roomy and able cruiser of a very popular size. The boat is 40 feet long overall, 36½ feet on the waterline with 9 feet extreme beam and 2 feet 6 inches draft. She has a raised deck forward, followed by a bridge deck under which the engine is located, with a raised cabin trunk over the after cabin and an after deck 5 feet in length.

The engine is a 4-cylinder Lamb, which gives the boat an






estimated speed of about 9 miles an hour. The bridge deck is unusually roomy, being 7 feet 8 inches in length with a seat on either side of the companionway into the after cabin. The forward cabin contains two berths, the after cabin having extension berths with drawers under, a good sized galley and a toilet room with wash basin and the usual fittings. The space under the bridge deck seats is utilized for an ice box which fills from the deck, a water tank and large wardrobe.

The boat has good freeboard, pleasing sheer, and fine lines which should make her easy to drive and a good sea boat. The bridge deck is protected by an awning on permanent stanchions. The construction is substantial, although not unnecessarily heavy.

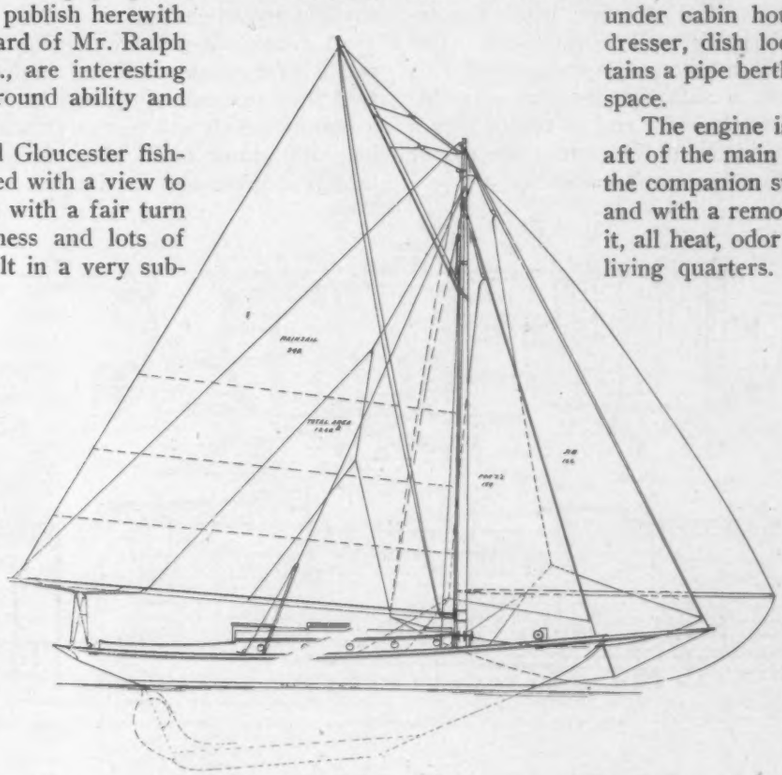
# An Able 45-Foot Auxiliary Sloop

PRACTICALLY all of the sailing yachts that are built today for any except purely racing purposes, are auxiliaries, and the plans which we publish herewith of a 45-foot sloop from the board of Mr. Ralph E. Winslow of Quincy, Mass., are interesting by reason of the general all around ability and roominess of the craft.

The boat is of the modified Gloucester fishing sloop type, and was designed with a view to producing a good looking boat with a fair turn of speed, stability, seaworthiness and lots of room below. The craft is built in a very substantial manner and will make an excellent and fast cruiser.

The principal dimensions are: Length overall, 45 feet; length waterline, 31 feet 4 inches; beam 12 feet and draft 6 feet 6 inches. She has a total sail area of 1,262 square feet, 942 feet of which is in her mainsail, the balance being in the two headsails.

She is well arranged below, with a large main cabin containing two built-in berths on either side with extension transoms in front of them, a large clothes closet, toilet room, sideboard, tool locker, etc. Forward of this cabin is a large galley with full head room under cabin house, containing ice chest, sink, dresser, dish locker, etc. The forecastle contains a pipe berth for one man and good storage space.

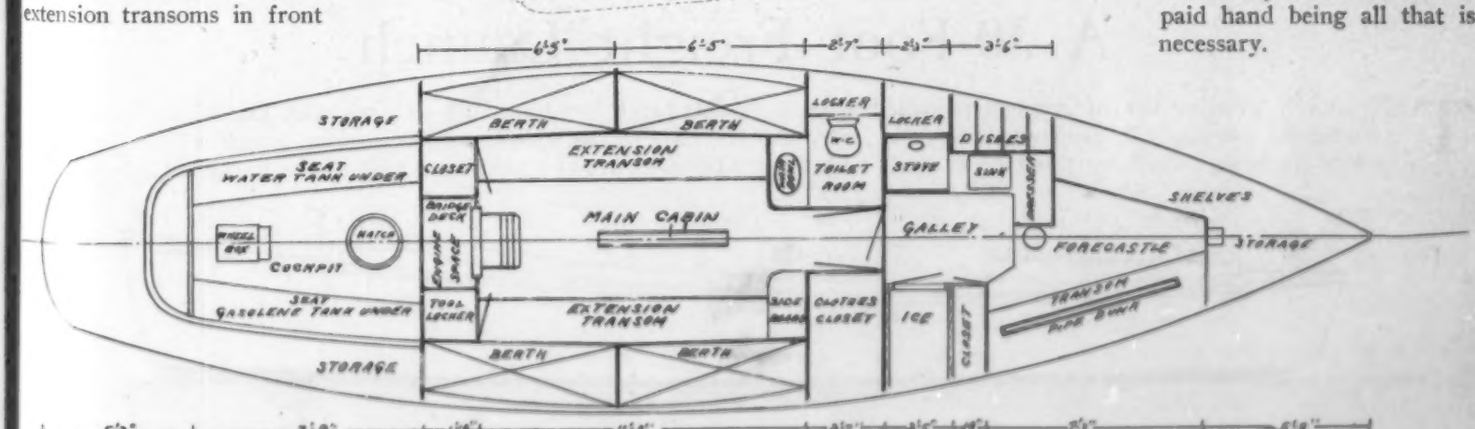


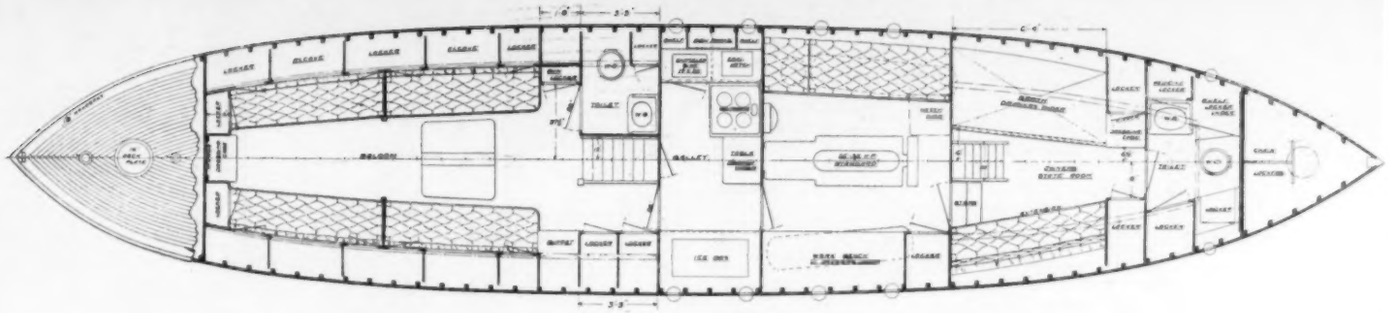
The engine is located under the bridge deck aft of the main cabin with the fly-wheel under the companion steps. It is thus out of the way, and with a removable bulkhead built in front of it, all heat, odor and grease are kept out of the living quarters. The cockpit is of good size, with seats on either side.

The boat has a fine entrance with no reverse curve, fairly long keel, good freeboard and pleasing sheer. She should make an able and comfortable cruising boat under any and all conditions.

She is exceedingly well equipped with closet and locker room, everything being arranged for convenience while cruising or living aboard.

Her sail plan is moderate and she should be easily handled by a small crew, one paid hand being all that is necessary.





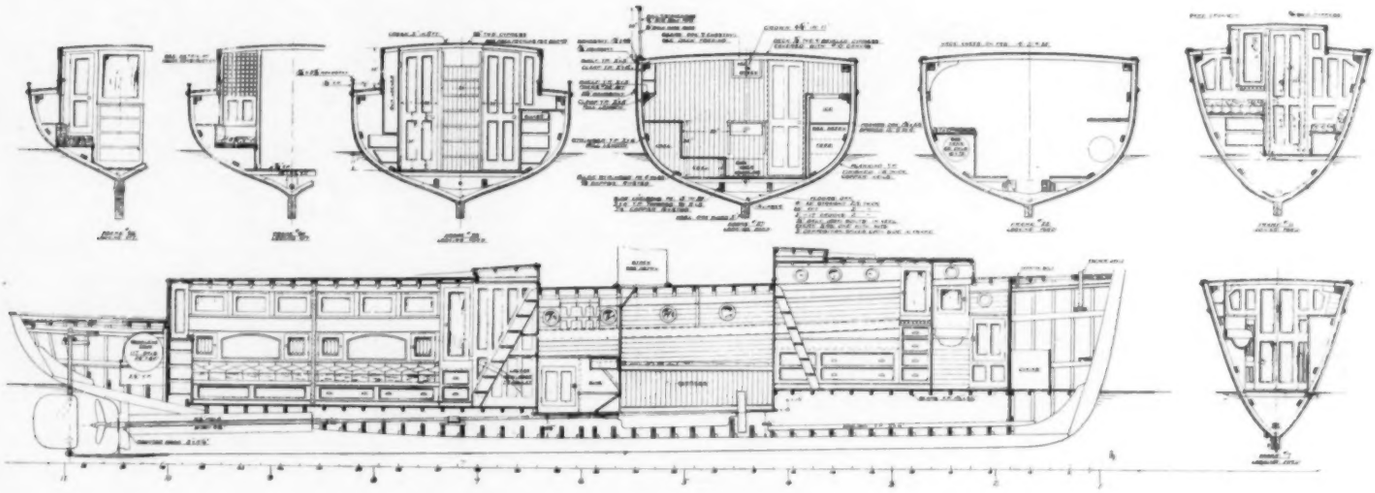
# A 56-Foot Power Cruiser

THE plans which we publish herewith are of an able 56-foot power cruiser designed by H. W. Patterson and built by the Milton Boat Works of Rye, N. Y. for Mr. St. John of New York City. This handsome vessel is 56 feet 6 inches overall, 11 feet 2 inches beam and draws 3 feet 8 inches. A 25-H. P. Standard motor drives her over 10 miles per hour. She is an excellent sea boat and remarkably roomy.

The bridge deck, with cushioned seats and wicker chairs affords an ideal lounging place for fine weather, while the arrangement below decks is remarkably well worked out. The owner's stateroom is forward with a toilet room connecting. This room is fitted with a wide berth, a sofa that may be extended to form a bed, dressing table and lockers, and is reached by a companionway from the deck. Abaft of this comes the engine room with berth, work bench, wash basin and lockers.

Next is the galley, with coal range, sink, dish racks and the usual fittings, and a large ice box. From the galley bulkhead aft, is given up to the guest's quarters. Wide seats, with upholstered backs, may be extended to form four berths. Gun lockers, buffet, dressing case and lockers occupy the corners, and lockers with leaded glass doors alternate with alcoves along the sides. The finish is mahogany carefully selected. The engine room galley and owner's toilet have air ports in the side of the boat. A box skylight gives light and air to the forward quarters.

A trunk extends from galley bulkhead aft over the saloon, and a false stack ventilates engine room and galley. One may pass from one end of the boat to the other without going on deck, a feature which will be appreciated in bad weather. Large gasolene and water tanks allow an extended cruising radius. The boat is at present in Florida waters.



# A 30-Foot Freight Launch

THE rapidly growing use of gasolene-propelled boats for commercial purposes is evidenced on every side, and orders are being placed for this type of craft with firms that heretofore have built pleasure boats exclusively.

The plans of the 30-foot freight launch which we publish herewith are of a boat being built by the Bayonne Launch Co., of

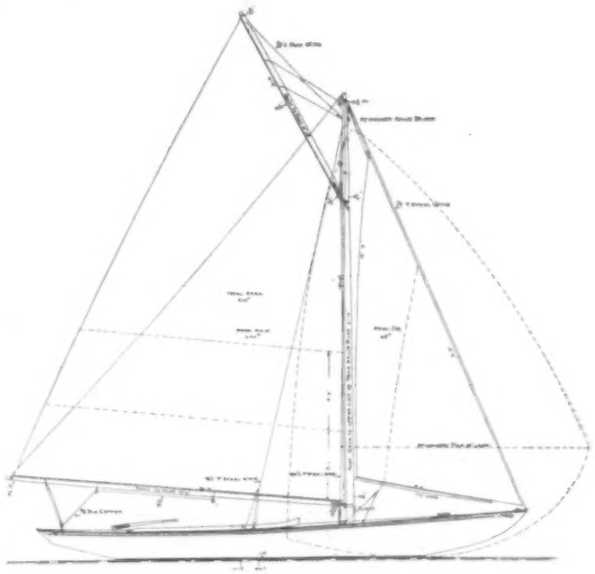
Bayonne, N. J. for use as a small working and cargo boat. The entire center of the boat is left open for handling freight, the engine being at the after end under the deck, in which is a companion hatch. This arrangement keeps the engine housed and yet at the same time makes it accessible. The dimensions of the boat are: Length overall 30 feet, length waterline 27 feet 6 inches, extreme beam 7 feet 6 inches, draft 2 feet 2 inches, least freeboard 2 feet 3 inches. She is equipped with a 7½-H.P. motor which gives her a speed of from 7 to 8 miles per hour.

# The 15-Foot One-Design Class of the Corinthian Yacht Club of Marblehead.

THE Corinthian Yacht Club of Marblehead is to have a new one-design class this year, for racing at Marblehead and on Massachusetts Bay. The boats were designed by John Alden, naval architect, of 27 Kilby St., Boston, Mass., and are fine little craft of the following dimensions: Length overall 25 feet, length waterline 15 feet, beam 6 feet 1 inch and draft 4 feet. They will have 1,200 pounds of outside iron ballast with a sail area of 310 square feet. The freeboard forward is 2 feet 4 inches, and least freeboard 16 inches.

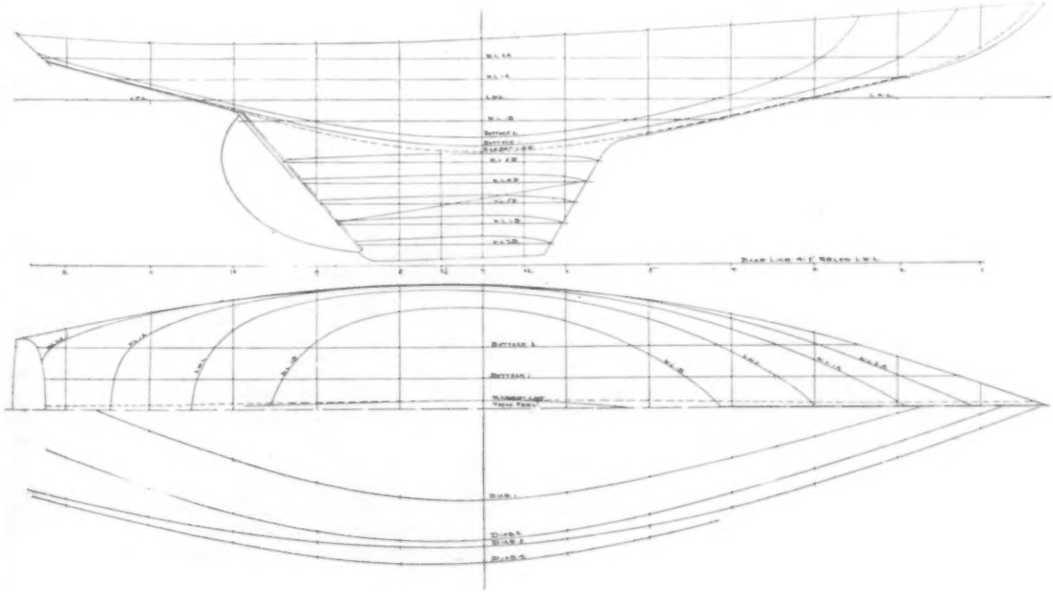
They are designed primarily as able and comfortable afternoon sailers, with a good turn of speed. They are plainly finished and are planked with white cedar, copper fastened. They are being built by the Stearns & McKay Co., of Marblehead, Mass., and the class will be raced steadily this summer. With the other new classes that are being built this year for Eastern waters, Massachusetts Bay will see a big fleet of these little fellows and will witness some keen racing.

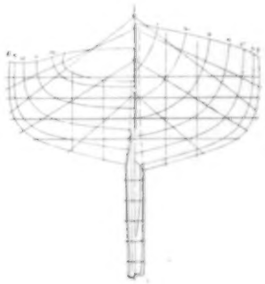
The boats have good lines with pleasing sheer and a fairly flat floor and should be fast. A boat of this size can be built and finished for about $550. They are an open boat with good-sized cockpit and canvas covered deck, with the sail all inboard, and they should be very easy to handle.



They are strongly constructed in the best manner, with oak keel and hard pine deadwood, oak frames and deck beams with hard pine stringers, and 11/16 inch cedar planking with Georgia pine covering board. The frames are spaced 9 inches, center to center. The rudder stock and trunk are of brass pipe the former being fastened to the rudder with brass rods.

It is gratifying to see the growth of one-design classes for racing and afternoon sailing. Nothing keeps alive interest in a club as competition in boats of this size. Practically all leading clubs are building new one-design classes this year.





# MESS ROOM TALK

IN this Department we will answer questions concerning the problems which boat owners are constantly running up against in the operation of their motors or the handling of their boats. Theoretical as well as practical questions will be answered promptly by mail, and when of sufficient interest, will be printed for the benefit of YACHTING readers. This service is free. Don't hesitate to make use of it. Address, Information Department, YACHTING, 141 W. 36th St., New York City.

### Propellers For A 19-Foot Runabout.

Glen Allan, Miss., January 17, 1912.

What size and pitch two-blade propeller would you recommend for a single cylinder, 4-H.P. Ferro motor in a light runabout, 19 ft. long by 3½-ft. beam?

In this same boat, what approximate H.P. would be required to turn the following size wheels at 900 R. P. M.: 14" diam. by 18" pitch, 15" diam. by 24" pitch?

Thanking you for this information. G. R.

Inasmuch as the Ferro is a comparatively high-speed two-cycle motor, we would recommend about a 12-inch, two-bladed propeller having a pitch of, approximately, 18 inches—although, at best, the selection of a propeller is a cut-and-try proposition.

Your second query cannot be answered without knowing whether the propellers under consideration are of the two-bladed or three-bladed type. Assuming that they are both of the three-bladed type, we should say that the first would require about six and the second eight horsepower to fulfil the conditions as stated.

### Volts Carried By Secondary Wire Of Ignition System.

Everett, Wash.

Through your "Mess Room Talk" will you please tell me what the voltage is in the primary wire after leaving the spark coil.

We know that it is very high, but electrical men here vary in their estimates from 2,500 to 50,000 volts. R. B. H.

In your question you evidently refer to the secondary wire, as the primary carries the current from the batteries to the coil. The voltage in this is scarcely ever over ten. The voltage in the secondary wires bears the same relation to the voltage of the primary that the number of turns in the secondary winding bears to the turns in the primary winding of the coil, and consequently varies with different coils. Thus, if the battery delivers ten volts to a coil having a thousand times as many turns in the secondary winding as there are in the primary, the resulting voltage in the high-tension, or secondary, wires will be 10,000. With six dry batteries and an ordinary coil, it is probable that the current is stepped up to about 12,000 or 15,000 volts for the formation of the spark.

### Propeller Power and Bilge Keels.

Sydney, N. S., January 27, 1912.

I have a transom stern motor cruiser of the following dimensions: Length overall 25 feet, maximum beam, 6 feet 9 inches; maximum draft, 2 feet 2 inches; draft to rabbet, 1 foot 6 inches; displacement to L.W.L. approximately 2.3 tons.

In the boat I have installed at present a single cylinder 5½-H.P. Ferro engine 4¼"x4¼" with a 3-blade 16x16 Harthan wheel, blades 4¾" maximum width. The engine turns this propeller 700 to 720-R.P.M. and I get a maximum speed of about 7¾ miles. I am thinking of replacing the above engine with a 2-cylinder, 8-H.P. engine 3¾x3½" of the same make.

1. Is an engine of the size and speed of the 8-H.P. Ferro, a suitable engine for a boat of this character, taking into consideration, economy of operation and speed to be obtained, or would a lower speed engine be more desirable, particularly in heavy weather, or under heavy load.

What size, pitch and make of propeller would you advise installing with the 8-H.P.

3. What speed may I expect to get.

4. Is the slip of my present propeller excessive, and is it the best style and proportions for my boat, using the present 5½-H.P. Ferro.

5. Can you give me information as to the proper line of direction and proportions for bilge keels and would such keels reduce my speed noticeably. W. A. W.

1. While a low speed, heavy duty engine might be slightly more economical of gasolene when installed in a heavy cruiser, I believe the Ferro as mentioned would give exceedingly satisfactory service.

2. The best propeller to use would be that furnished by the makers with the motor, as this will be designed to enable the motor to develop the revolutions per minute at which it delivers its highest efficiency.

3. A speed of between eight and nine miles per hour should be obtained with the increased power.

4. I do not think there is excessive slip in your present equipment. In fact, a speed of 7½ miles an hour is exceedingly good, considering the amount of power and the size and weight of the boat.

5. In regard to the bilge keels, I do not think that bilge keels are necessary or particularly practicable for a small power boat such as this. However, they could be put on without much, if any detriment to the speed. They should be put on at the turn of the bilge, about 9 or 10 inches below the waterline and should be about 9 feet in length and about 3 inches deep, tapered at either end.

### Cylinder Packing.

Camden, Maine.

If I take my engine apart to clean, how can I get tight joints between cylinder head and cylinder and around my water circulating system. I have been up against this problem and have always had trouble with the joints leaking. W. B. C.

You should have no trouble in this matter as it is easy to make a well-fitting gasket from copper asbestos gasket packing for the cylinder head joints. This is made of two thicknesses of very thin sheet copper with asbestos paper between. There is another composition made of vulcanized asbestos packing with brass or copper wire interwoven. A rubber or leather gasket can be used for the water pump connection, or even a heavy paper gasket shellaced for temporary use, if nothing else is handy.

### Racing Mixed Classes On A Handicap Basis.

New Haven, Conn., January 9, 1912.

My trouble may, or may not come under this department. However, what I am after is information regarding the starting and operating of a handicap class of yacht racing.

Heretofore, the racing of the New Haven Yacht Club has been confined to one design classes, but there are some enthusiastic racers who are not eligible to these classes, and the per cent class seems to be the answer.

Our boats eligible for this class, range from N. Y. and Buzzard's Bay, 30-footers and yawls, down to 15-foot open knockabouts.

Now supposing, (1) but five or six boats came to the line on a race day, could they be raced in one class, irrespective of their type?

Again, (2) in the case of the initial race, should each type be handicapped according to its actual racing length, or should yawls, for instance, receive more time than a sloop rig?

Again, (3), if one craft beats another by 5 minutes, the handicap being figured in, should she, in the next race, have her handicap cut that full 5 minutes, or 25 per cent., or 50 per cent. of it, which latter would seem fairer, if she should have won the race by a fluky wind?

(4) Is it customary to notify the skippers, before the race, what their respective handicaps are, in case all of the handicaps are known prior to starting the race? B. B. L.

Replying to your query, I would say that handicap yacht racing is based on the actual performance of the different boats, but where there are enough boats to divide them into classes of the same general type and speed, such as raceabout and other small, light, fast boats in one division and larger, heavier boats in another, so as to have the percentage handicaps more nearly equal, better racing results.

The rules of the most successful handicap class in this country say: All yachts other than scratch receive as a handicap a percentage of the *fastest* elapsed time, made in a race, such percentage to be figured according to their relative performances in the last four preceding races. For instance; if a boat is beaten by another 4% of the elapsed times in a race, 5% in another, 2% in another and 1% in a fourth race, the average of these is 3%, which will be her handicap over that boat in the next race. After the 5th race has been sailed, the result of the first race is thrown out in figuring percentage, and that of the 5th race included in its stead. No handicaps shall exceed 10% in any one division.

Answering your first question: If but four or five boats of two divisions came to the line and it was desired to race them all in one class, it could be done by fixing an arbitrary handicap between the two divisions; as for instance, if one division was judged to be 10% faster than another, then the scratch boat of that division would have to allow the scratch boat of the other division 10% and all the other boats in that division 10% plus their handicap in their own division. The other boats in the faster division would be compared with the boats of the slower division individually, according to their respective handicaps, plus 10%.

(2) In an initial race, if you have no actual data of comparison, an arbitrary guess can be made as to the relative speed of two boats, and after the first few races these handicaps adjust themselves. There is also usually some basis of comparison, possibly through some third boat. No allowance is made for rig, but for actual speed only.

(3) According to the rules of the Handicap Class of L. I. Sound, if a boat is beaten in any race by more than 4% in *excess* of her handicap allowance, her handicap for succeeding races shall be figured as though she had been beaten by her handicap in that race, *plus* 4%.

(4) It is customary to notify the skippers before a race what their handicaps are for that race. This is usually done by a handicapper who figures out the changes due to the last race and notifies the various skippers by letter before the next race. This letter should contain the handicaps of all the boats in that division or class.

We enclose a booklet giving the rules of the Handicap Class of Long Island Sound, which may be of use to you in the formation of such a class.

### Power for a Small Tender.

Baltimore, Md.

Can you advise me how much power I ought to put in my 12-foot round-bottom tender to my 30-foot sailing yacht? Would you recommend high or medium speed?

J. S. D.

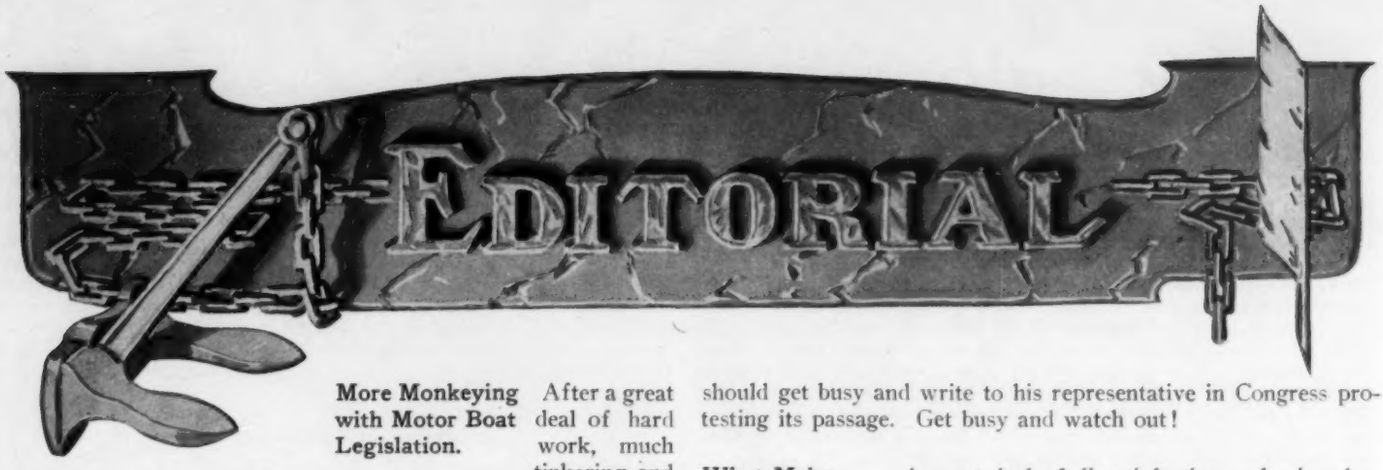
From 1½ to 2 H. P. would be all you need. If you are not going to tow the boat, would recommend an engine turning up 700 to 800 R. P. M. on account of its lighter weight. If you contemplate towing your yacht, would suggest slower speed engine (400 to 600 rev.) and perhaps more power, even at sacrifice of lightness.

## The School for Seamanship

By ROBERT SEAVER.

Oh, ship me abaft of the gallows bitts,
Alee of the anchor stock,
And heave me a handspike, the while I fits
A bight in the quarter-block.
I ask no binnacle-list at all,
No lanyard, or garboard strake,
While the fore-royal staysail I overhaul,
And the dog watch I daily take.

I'm a nautical man, you can readily see,
By the cut of my quarter rails,
From windsail to keelson, I certainly be
The tarriest tar that sails;
I've got a diploma that will endorse
What I've stated, and that affirms
I have taken a Correspondence Course,
In a School for Nautical Terms.




**More Monkeying with Motor Boat Legislation.** After a great deal of hard work, much tinkering, and some show of feeling, a bill affecting the inspection of motor boats was passed by Congress on June 9th, 1910, taking the place of a previous regulation that had been enacted when such a thing as a motor boat was unheard of. This new law, from the standpoint of the owner of a small motor boat or pleasure craft was fairly satisfactory and boat owners generally have been careful in observing its regulations as regards equipment, and so forth. Boat owners had no fault to find with it, and that it met the needs of safety is shown by the fact that the number of accidents on such craft have been greatly lessened in the last two years, as is evidenced by the report of Commissioner of Navigation Chamberlain.

Not satisfied with this, however, a bill has been introduced in the House of Representatives by Congressman Sherwood of Ohio for the repeal of this act.

The bill reads as follows:

House Bill 15786, In the House of Representatives, December 14th, 1911.

Mr. Sherwood introduced the following bill, which was referred to the Committee on the Merchant Marine and Fisheries and ordered to be printed:

A Bill to repeal an Act approved June 9th, 1910:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled that the Act of Congress approved June ninth, nineteen hundred and ten, entitled "An Act to amend laws for preventing collisions of vessels and to regulate equipment of certain motor boats on navigable waters of the United States" (Thirty-sixth Statutes at Large, page four hundred and sixty-one, chapter two hundred and sixty-eight), be and the same is hereby, repealed.

Sec. 2. That all laws and parts of laws in so far as they were repealed by the Act of Congress approved June ninth, nineteen hundred and ten, above referred to, are hereby re-enacted.

Sec. 3. That this act shall take effect on and after thirty days after its passage.

If this bill is passed it means that we go back to the old law in force prior to the present act, which imposes upon motor boats the same requirements and regulations as upon steam vessels, and opens the way for tinkering with a new bill that may work hardship on the owners of small boats. Boat owners generally should protest against the passage of this bill or against any movement tending to displace the present regulation. While this new bill has not yet come up for a hearing, every boat owner should get busy and write to his representative in Congress protesting its passage. Get busy and watch out!

**What Makes A Cruiser?** A great deal of dissatisfaction and misunderstanding has been caused in power boat races by the lack of an adequate definition as to what constitutes a cruiser. It would be a wise move on the part of power boat bodies, such as the A. P. B. A. or the National or Western P. B. Associations to define beyond question what constitutes a cruiser, and to impose certain restrictions in regard to them.

In all cruising and long-distance races the types and variety of the craft are extremely divergent and there is naturally a great deal of latitude allowed in the entries. It would be simple to so define a cruising boat and specify a minimum of equipment that much of this trouble in cruising races could be avoided. An owner should not be allowed to strip his craft for a race of everything that makes her a cruiser, and a regatta committee should see to it that adequate cruising equipment is always on board.

We had occasion last summer to see races nearly broken up by entry of boats that conformed with the loosely defined letter but not the spirit of the rule defining cruisers, and before this again takes place the rule should be amended so as to adequately cover the situation. It is done with sail boats; why not with power boats?

It would also seem a wise move if some formula were adopted for this class of boats, limiting engine power and fixing a minimum displacement for the various classes.

**Buying A Boat** This is the season of the year when the first warm days of the sun shining on both sides of the fence, starts the boating lust in the yachtsman's blood, and sends him on a still hunt for some kind of craft for the coming season. The Boat-for-Sale pages of all the magazines are eagerly scanned for the boat that will fit each man's pocketbook, and the first off-day sees him hiking out to the yards to look over the prospects.

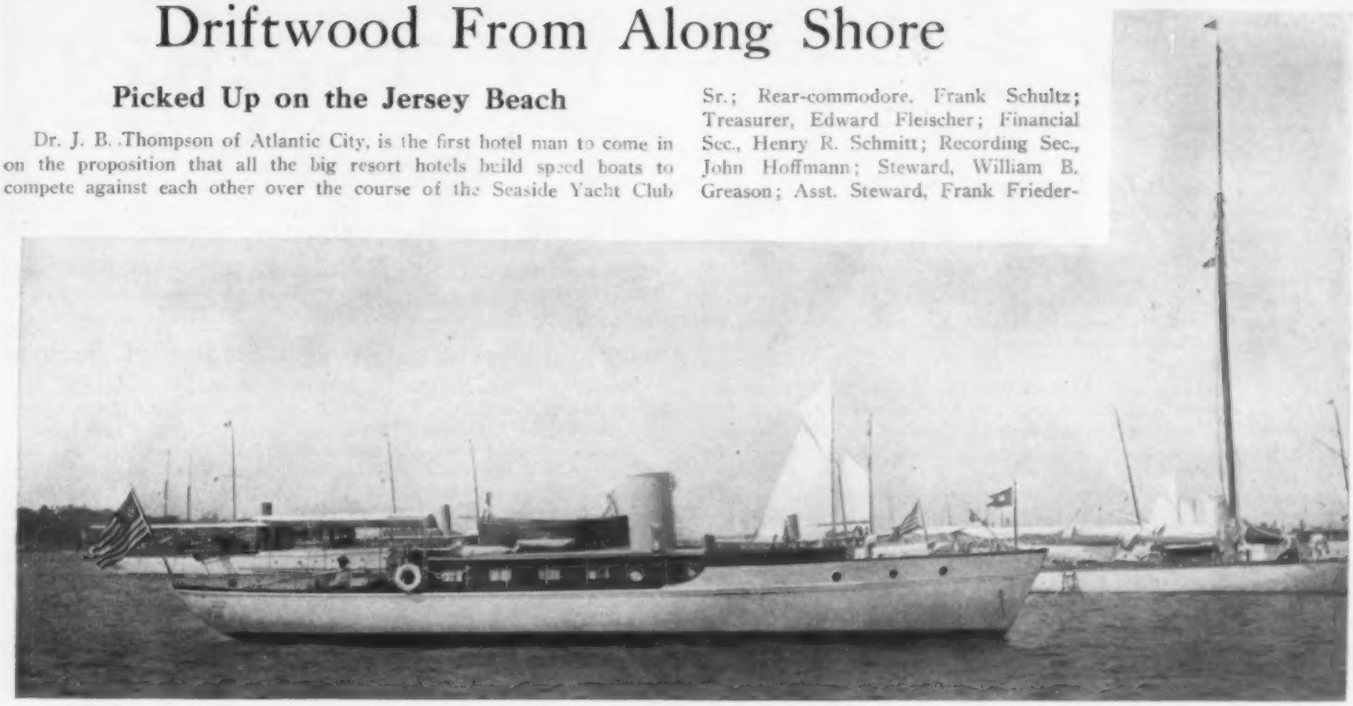
In this issue of YACHTING will be found some of the best "buys" on the market; and if you see therein anything that you like, we would advise you to get quick action on it, as the bargains do not remain long on the market at this season of the year. The good boats are usually sold quickly, and those that come late have to take what is left. You will find plenty of good boats if you know how to pick them out—boats that will suit you from the ground up—but in making your selection, pick one out, more because she is sound, in good condition and is of the type you want, rather than because her interior arrangement catches your eye.

With these few words of admonition, go to it, and see that you get the best boat that your money can buy.

# Driftwood From Along Shore

## Picked Up on the Jersey Beach

Dr. J. B. Thompson of Atlantic City, is the first hotel man to come in on the proposition that all the big resort hotels build speed boats to compete against each other over the course of the Seaside Yacht Club



next season. He is having a 20-foot hydroplane built from designs by Captain Harry Andrews. She will do 37 miles and at a recent test of her model in a tank the results were phenomenal.

And now comes Warren Somers who is going to jump into the racing game next season with a 30-foot speed boat which is being built on the conservative lines of the Follow Me, the Ocean City champion of 1911. Her owner says he is going to stay right down on the water until he gets the "hang of the thing" before he goes into the hydroplane class.

Upon the refusal of the builder to build a new Sand Burr III because her owners wanted to install a certain make of engine, the White Brothers will be without a successor to the famous Sand Burr II next summer, but they have completely overhauled the sensation of 1911 and expect to kick along very nicely in the coming races.

Senator Coyle of the Ocean City Motor Boat Club was not satisfied with the erratic showing of the Cyram last year and the result is a 20-foot hydroplane which will soon be in the water and given an early tryout.

Nick Young of the Seaside Club and Captain of Dart II won't say anything, but it looks as though he had something up his sleeve to spring on the crowd as soon as the ice breaks up. He has sold the old war horse Dart II and works long hours on a new model which nobody has seen.

The deliberations of the American Power Boat Association over a lot of new rules is holding back a lot of business for the speed-boat builders. The designers are flooded with orders for popular 20 and 30-foot hydroplanes but cannot begin construction because all these new boats will race under new rules.

There is a treat in store for the skippers who delight in summer cruises on the inland waters of New Jersey. The Inland Waterway has been completed and an unobstructed 100-foot wide channel now runs for 100 miles from Bay Head to Cape May.

A movement is on foot to revive the old races for sailing yachts of all classes during the coming season. The old salts have never given up the days of the past and a look over the records shows that there are just as many fine boats going along under canvas as ever. The thousands of motor boats have not as yet made history of the sailing yacht.

## Melrose Yacht Club

At a meeting of the Melrose Y. C. held on Jan. 6, the following officers were installed for 1912:

Commodore, John F. Doepker; Vice-commodore, Theodore Golden, Sr.; Rear-commodore, Frank Schultz; Treasurer, Edward Fleischer; Financial Sec., Henry R. Schmitt; Recording Sec., John Hoffmann; Steward, William B. Greason; Asst. Steward, Frank Friedericks; Measurer, Andrew Kraus; Sergt.-at-arms, Fred'k Berg; Fleet Captain, Christ Jacobi. *Board of Directors*: Edward Hammer, John Lavery, John H. Schmitt, Andrew Kraus, Fred'k Berg.

After the installation a fine supper was served and all had a good time.

The ninth annual ball of the club was held at Crotona Casino on Saturday evening, February 10th and was a very enjoyable affair. The members of the club and their friends turned out in force and enjoyed not only the dance but the supper that followed it.

The Melrose Yacht Club is in a very flourishing condition and the members look forward to an active and successful season.

## New Rochelle Yacht Club Annual Meeting

The annual meeting of the New Rochelle Yacht Club was held at the Hotel Manhattan, New York City, on February 3rd. Reports of officers showed the club's position as the most flourishing in its history of 27 years, with a membership of 240, assets of over $13,000 and cash on hand more than $3,000.

Commodore E. C. Myrick, of sloop Lady M, was re-elected, W. S. Creevy, Flagship Eileen, was elected Vice-Commodore and J. A. Mahlstadt, Flagship Attair, was elected Rear-Commodore. The other officers elected were: Secretary, C. A. Marsland; Treasurer, Henry M. Lloyd. For Measurer, R. M. Haddock: For Trustees, Henry H. Moulton, W. L. Van De Wiele, Geo. A. Fisher. For Regatta Committee, Geo. P. Granbery, A. E. Eldridge, H. L. Stone. For Law Committee, John F. Lambden, Robert C. Ten Eyck. Art Committee, Henry Doscher, W. J. H. Ehlers. Nominating Committee, Ernest B. Wright, William King, Jr., Harry S. Hart.

The meeting was followed by the annual dinner, arrangements for which were in charge of the House Committee, Arthur A. Titus, William Winter and Louis R. Smith. A good orchestra added zest, and an elaborate entertainment which followed kept those present in high good humor so that when the time came to take the last train to New Rochelle all found it hard to "break away."

Commodore Myrick thanked the board of trustees and the members generally for their loyal support, with particular commendation for the fine efforts of the house committee. Ex-Commodore F. H. Waldorf who is now Mayor of the City of New Rochelle, announced that he had interviewed Mr. C. Oliver Iselin with the result that Mr. Iselin had generously agreed to sell to the club Harrison Island which the club now occupies under lease. Harrison Island is conservatively valued at

from $40,000 to $50,000 and Mr. Iselin, who is a member of the club, in offering it to the club at $20,000 payable in easy terms is virtually presenting the club with $20,000 cash. There is no doubt that Mr. Iselin's offer will be accepted within the next 3 months, and the New Rochelle Yacht Club will then own its own home and will thus be firmly established as one of the most active, progressive, popular and successful in the Eastern States.

## St. John Power Boat Club

The St. John Power Boat Club of St. John, N. B. held its second annual meeting at the Club headquarters, Marble Cove, on the evening of January, 9th, a large attendance of members being present.

Commodore S. P. Gerow who has been Commodore of the club since its organization was re-elected without opposition and will be assisted by the following officers during this year: A. P. McIntyre, Vice-Commodore, Frederick Roberts, Rear-Commodore, C. E. V. Cowan, Treasurer, Mayes Davis, Secretary.

The Club now boasts 500 members with nearly 150 power boats on its register, although in existence but a year and a half. A magnificent Club House has been erected at Marble Cove and the club extends a welcome to any American yacht cruising eastward to St. John and the use of the facilities of the organization.

Commodore Gerow has appointed Frederick Corey as his Fleet Captain and D. E. Berryman, M.D. as Fleet Surgeon.

The annual cruise will begin on June 30th.

## Recent Yacht Sales

There has been considerable activity recently in the Yachting world, as shown by the following sales and charters that have been made by Messrs. Tams, Lemoine & Crane.

The 90-ft. houseboat Ednada III, chartered to Sherwood Aldrich for a cruise in Chesapeake Bay. This boat, one of the modern houseboats, is equipped with 2 60-H. P. Craig Motors. Mr. W. Earl Dodge chartered the same boat for a cruise in Florida waters at the completion of Mr. Aldrich's charter. She will be used as a tender to the racing hydroplane which Messrs. Tams, Lemoine & Crane have designed and just finished.

The twin-screw 80-ft. houseboat Lanai, has just been sold by Tams, Lemoine & Crane to Commodore A. C. James, and is now on her way south. Mr. James intends cruising in Florida waters with the boat.

The steam auxiliary brigantine Aloha has been sold by Commodore James to a syndicate of prominent yachtsmen, and is now undergoing extensive alterations, under the same firm's supervision.

The 110-ft. motor yacht Heather II has been chartered for a cruise in West Indian waters to Mr. McCutcheon, of Chicago.

Mr. August Belmont, Jr., has sold his runabout launch to Mr. G. E. Varney, of Indianapolis, Ind. The 110-ft. cruising motor yacht Cristina sold by Mr. F. C. Fletcher to Mr. J. D. McKee, of Pittsburgh. The Cristina is one of the best known of the larger motor cruisers. It is equipped with 2 125-H. P. Standard Motors.

The 75-ft. twin screw motor yacht Akahondi has been sold by Mrs. John Nicholas Brown to Commodore Wm. H. Childs. She has been renamed Joyful. She will be the flagship of the Indian Harbor Yacht Club next summer.

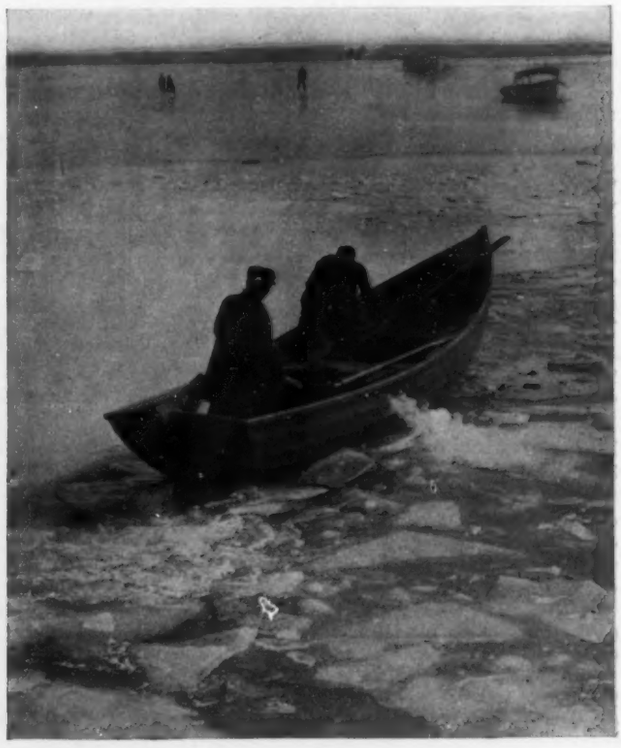
The 125-ft. houseboat Nirodha was sold for Mr. E. Childs to Mr. Hugh D. Auchincloss. Extensive alterations have been made under Messrs. Tams, Lemoine & Crane's supervision.

## Sales and Charters Through Stanley M. Seaman

Steam Yacht Roamer sold for Mr. N. G. Herreshoff, Bristol, R. I., to Mr. Lyman E. Warren, N. Y. Y. C. Roamer was built for this designer's personal use and has always been conspicuous in all yacht gatherings.

Gasolene Cruiser Temegan sold for Mr. R. E. Dowler, New York City to Mr. F. F. Christy of Hastings-on-Hudson, N. Y. Cruising Launch Tommy Traddles sold for Mr. V. B. Hubbell, N. Y. Y. C. to Mr. D. B. Hoornbeek, Elgin, Ill. Auxiliary yawl Maori sold for Mrs. Mary Salter to Mr. J. F. McClendon, New York City. Gasolene cruiser Kathmar sold for Mr. R. T. Fowler, New Rochelle Yacht Club to Dr. J. E. Lloyd of Brooklyn for use on the Hudson. Launch Evelyn sold for Mr. J. M. Sherrard of Brooklyn to Mr. A. J. Longley, New York City. Launch Wilhemharvet sold for Mr. W. H. Ferry to Mr. P. B. Polhemus and others. Sloop Peri II sold for Mr. H. B. Griffin to C. F. Herbert. Speed launch Carita sold for Mr. J. S. Clarke of Philadelphia to Mr. F. W. Yates of Rochester for use on owner's Winter home at Hobe Sound, Fla. Launch Kum On sold for Mr. F. Barto to E. C. Benedict & Co., New York City, representing South American interests. Cruising launch Mijess II sold for Mr. Geo. Bowles, Astor Theatre, New York to Mr. Lee Rosenberg, New York Cotton Exchange. Auxiliary yawl Gladys sold for Mr. Robert Fuchs of Chicago to Mr. H. G. Outwater, New York City. Raised deck cruiser Thelma sold for Mr. G. E. Toerge, New York City to Mr. David McKnight, Philadelphia, Pa. New York Yacht Club 30-footer Asthore sold for Mr. Clinton W. Crow, New York City to Mr. S. F. Ward, N. Y. Y. C.

Ice has no terrors for the gasolene fishing fleet.



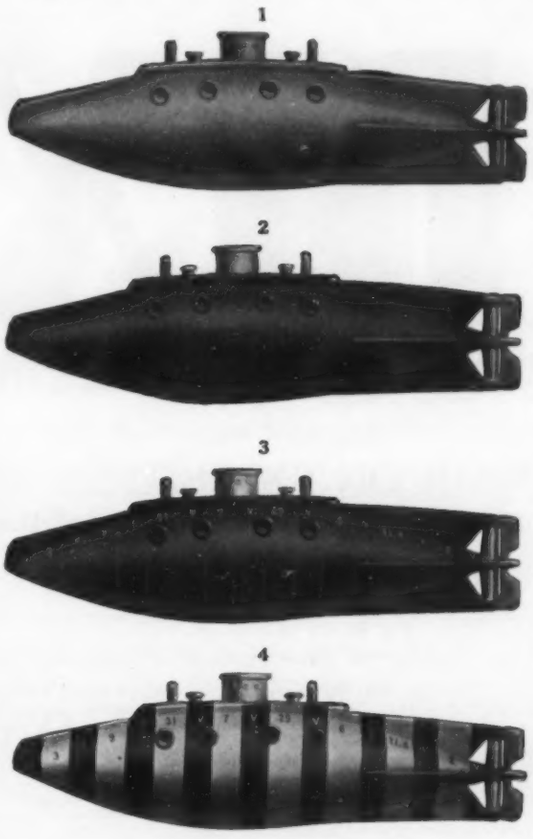
A February scene on Jamaica Bay.

# Protect Your Boat With

## VALENTINE'S VALSPAR

"The Varnish That Won't Turn White"

Here's a test that tells the story. Before you varnish your boat again, *know* what you are using. Use a varnish that will not turn white in water.




1. A model submarine boat made of copper.

2. Painted black from stem to stern. Painted black in order to show more clearly the turning white of the various varnishes.

3. Then varnished on alternate sections with Valspar, marked V and eight best known spar varnishes. The appearance is that of any black surface covered uniformly with varnish.

4. On immersing the model in water, the other spar varnishes indicated by the numbers begin to turn white almost immediately, and in a week or ten days the submarine presents this striped appearance.

The Valspar has remained unharmed, as clear and transparent as before the model was immersed. All the other varnishes have become white and opaque, obscuring the black beneath. Their life, lustre and protective qualities have been destroyed.

Use Valspar and be satisfied. MAKE THIS TEST YOURSELF. We will be glad to send you the necessary materials. Mail the coupon.

# Valentine & Company

257 Broadway, New York City

TRADE VALENTINES VARNISH MARK

Chicago Boston Toronto
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FILL IN—TEAR OFF—MAIL TO-DAY

VALENTINE & COMPANY, 257 Broadway, N. Y. ..... (Y-3)

Name .....

Address .....

Send me, free of cost, a sample of Valspar and materials for a test which proves it does not turn white

DIXIE JUNIORS UNDER CONSTRUCTION.

# An Exc

# Ba

# THE DIXI

## REPRESENTS THE ULTIMAT N

In speed, finish, design and all-round reliability she establishes absolutely new standards

## SEE THE DIXIE JUNIOR ON EXHIBITION AT TH MA
**Sterling Engine Company's Exhibit. The owner of this boat i ppi**

If you are interested in the most fascinating, exhilarating and fastest growing sid mot

### History of the Dixie Junior

The DIXIE JUNIOR has been built to satisfy the demand for small racing hydroplanes and high speed yacht tenders. She is the logical outgrowth of the following boats which were all designed by Tams, Lemoine, and Crane:

| | |
|---|---|
| 1903—"Vingt et Un" | 26 miles |
| 1904—"Challenger" | 28 miles |
| 1905—"Dixie" | 30 miles |
| 1908—"Dixie II" | 35 miles |
| 1909—"Dixie III" | 38 miles |
| 1911—"Dixie IV" | Fastest boat in the world. |

**All the "Dixies" have been British International Trophy winners. The Dixie Junior possesses all the best points of every one of the foregoing craft**

### General Arrangement of Dixie Junior

This has been very carefully worked out. Forward there is a small turtle back deck; directly aft of this the helmsman's cockpit containing two comfortable seats. Automobile throttle, clutch, etc., so as to insure perfect control by the driver at all times. Aft of the helmsman's cockpit is the engine compartment; motor underneath a hood, with all parts easily accessible. An engineer's cockpit directly abaft the motor, followed by a small after deck. The helmsman being forward of the motor does away with objectionable gases and noise. Flare forward throws any spray well aft of the man at the wheel, assuring a dry, comfortable cockpit.

# DIXIE JUNIOR IS GUARANTEED [C

## Price - - - - - $4

FULL DESCRIPTION AND TA

**TAMS, LEMOINE & CRANE**
**52 Pine Street, New York**

**STATEN ISLAND SHI LI**
**Port Richmo en I**



VOLUME TIGHTLY BOUND

# eptional

# at

DIXIE IV., FASTEST BOAT IN THE WORLD.

# E JUNIOR

## N SPEED BOAT BUILDING

A limited number are at present under construction, and prompt deliveries can be made

## ADISON SQUARE GARDEN MOTOR BOAT SHOW

**pping her to Florida for races at St. Augustine, Jacksonville, etc.**

motor boating, the following description and details will surely appeal to you:

### Specifications and Construction of Dixie Junior

The construction is most substantial throughout, strength not having been sacrificed to attain speed. Only the best of material and workmanship has been used. *No boats have ever been built with more care and exactness to details.*

Frames and floors of elm, yellow pine planksheer, selected mahogany planking, copper and bronze fastened, three double planked bulkheads. Carries 25 gallons of gasolene. Shaft of Tobin Bronze, the Propeller of Manganese Bronze specially designed by Mr. C. H. Crane. Metal fittings throughout of brass or bronze. *Can be carried on the davits of yachts of even comparatively small size.* The Staten Island Shipbuilding Company who built the hull of "DIXIE IV." are the builders of the hulls of "DIXIE JUNIOR."

### Engine of Dixie Junior

The motor is a special 6-cylinder Sterling, 5½ bore, 6-inch stroke, rated 45-65 H. P. It is fully guaranteed to be more than efficient for the hard usage it will have. It can be absolutely relied upon to finish any races entered. It is without question one of the smoothest and quietest running engines built. Cylinders are cast in pairs, an arrangement which reduces the number of joints and possibility of leakage to a minimum. Cylinders and valve seats thoroughly water-jacketed. No part of the motor is exposed and yet all parts are easily accessible. A reverse gear of special design, crank shaft of special analyzed steel, and a special steel fly-wheel, have been built for these motors. Ignition system, Bosch two-spark dual type. This motor has developed 80 B. H. P., at 1,000 revolutions, and at 1,200 r.p.m., 90 B. H. P.

**Any purchaser of a "Dixie Junior" may see his own motor tested in the works of the Sterling Engine Company, Buffalo, or deputize some one else to do so if he prefers**

## TO MAKE 35 MILES PER HOUR

## $4,500 Complete

TAILS CAN BE HAD FROM

**LDING COMPANY**
**n Island**

**STERLING ENGINE COMPANY**
**1254 Niagara Street, Buffalo, N.Y.**

# Special Review of the Exhibits at the New York Show and of Other 1912 Products

**The information contained on this page, and continuing to page 272, constitutes an authoritative and invaluable review of the important and leading boat, engine and accessory products for 1912. Be sure to keep it for reference purposes. You are bound to find it most useful later in the season**

### Standard Motors.

The Standard Motor Cons. Co., of 186 Whiton St., Jersey City, N. J., have one of the largest spaces at the Show, in which they exhibit a line of their Standard motors. In addition, they show a cruising launch built by the Electric Launch Co., equipped with one of their 16-20-H. P. 4-cylinder motors. This boat and power plant will especially appeal to the man looking for an able cruiser, fit to go anywhere along the coast.

The Standard is a 4-cycle engine which is made in sizes from 8 to 1,000-H. P. and a full line of their stock engines is as follows:

| Guaranteed Brake H. P | Num. of Cyl. | Num. of Rev. | Weight of Eng. Only |
|---|---|---|---|
| 8-10 | 2 | 400 | 850 |
| 12-16 | 2 | 350 | 1,200 |
| 16-20 | 4 | 400 | 1,600 |
| 18-23 | 3 | 350 | 1,800 |
| 25 Auto Marine | 4 | 900 | 500 |
| 25-32 | 4 | 350 | 2,800 |
| 40-50 | 6 | 350 | 3,200 |
| 50-65 | 4 | 350 | 5,300 |
| 60 Auto Marine | 6 | 700 | 1,500 |
| 75-90 | 6 | 350 | 8,000 |
| 100-125 Single Acting | 6 | 350 | 5,800 |
| 175 Double Acting | 4 | 350 | 4,500 |
| 300 Single Acting | 6 | 300 | 9,500 |
| 300 Double Acting | 6 | 300 | 8,000 |
| 500 Double Acting | 6 | 300 | 16,000 |
| 700 Single Acting | 4 | 280 | 17,500 |
| 100 Double Acting | 6 | 280 | 25,000 |

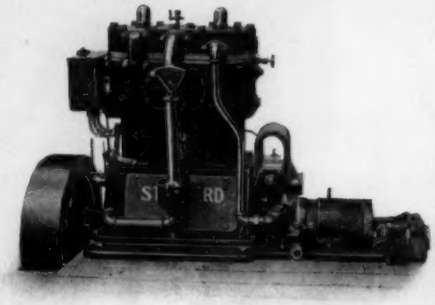
These engines are make-and-break, the "Standard sparker" being contained in one piece which can readily be removed without changing any of the adjustments. Contact points are tipped with platineo-iridium which insures long wear and clean points. The Standard prices include complete equipment including reverse gear, magnetos, oiling system, etc.

### Loew-Victor Engines.

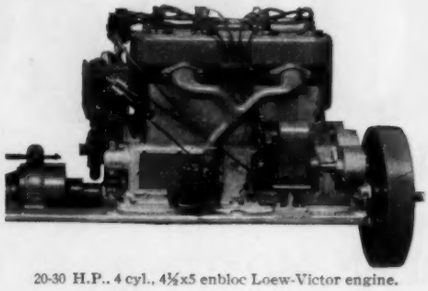
The exhibit of the Loew Engine Co., of 1909 Madison Ave., Cleveland, O., will consist of six complete engines, from one to six cylinders, and from 6 to 36-H. P. The Loew-Victor line consists of the following sizes of 4-cycle engines:

| | | | |
|---|---|---|---|
| Model | 10—1 | Cylinder | 4¾x5½— 6 H.P. |
| " | 11—2 | " | 4¾x5½—12 H.P. |
| " | 12—3 | " | 4¾x5½—18 H.P. |
| " | 13—4 | " | 4¾x5½—25 H.P. |
| " | 5—4 | " | 4½x5 —30 H.P. |
| " | 14—6 | " | 4¾x5½—36 H.P. |

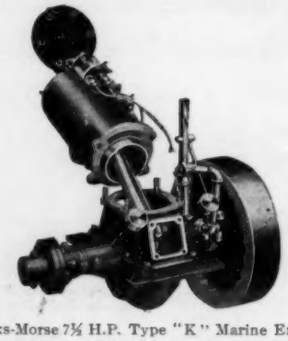
The 12-H. P. engine is a kerosene burning outfit, being a new model designed especially for this kind of fuel. The kerosene apparatus is a retort process which the Loew Company believe to be the only satisfactory process on the market today. The 30-H. P. is a high speed gentleman's runabout equipment which is guaranteed to deliver 40-H. P. at 1,300 R. P. M. These engines are fitted with reverse gears and full equipment, the prices ranging from $135 to $850.



Two-cylinder type, Standard, 8 and 12-H.P. engine.



20-30 H.P.. 4 cyl., 4⅛x5 enbloc Loew-Victor engine.



Fairbanks-Morse 7½ H.P. Type "K" Marine Engine with cylinder removed.

The new Waterman 1912 Outboard or Porto motor.

### Fairbanks-Morse Marine Engines.

Fairbanks-Morse Engines ought to attract at the Show the attention of those interested in securing power for pleasure boats. Unique designs of fly-wheels will be used on type E and G engines, specially designed for pleasure boats, as well as on the type K engines for cruisers and heavy craft. The fly-wheel is designed so that the operator may grasp it with one hand and pull it up against compression, and start the engine quickly without danger of kick-backs. The 12, 18, and 24-H. P. type G will be fitted with Delco ignition with quick starting switch, so that the engine can be started on compression.

The small size 3½-H. P. type E single-cyl. bore 3¾ inch, stroke 3¾ inch, is especially adapted for small boats. The 7-H. P. type E two-cyl. is a light weight, high speed engine, especially adapted for pleasure boats and light runabouts, up to 20 feet.

The Type G line consists of one, two, three and four cylinder engines developing 6, 12, 18, and 24-H. P. respectively. These engines are designed especially to give hard continuous service.

The new Type K Engines will consist of one cylinder, 5½x6 inches, develop 7½-H. P. and a two cylinder, developing 15-H. P. at 550 R. P. M. This engine is fitted with make-and-break ignition, plunger pumps, and manifold combining intake and exhaust hot-air adjustments to carburetor. The cylinder head gasket does not come in contact with the water. The water is by-passed to and from the head through outside water connections.

These engines are liberally designed and will operate successfully on low grade fuels. The designer claims great economy in fuel on Type K Engines.

The price range is $65 to $510. An interesting booklet showing size and types of boats in which these engines have been used is being published and will be mailed upon application. The 1912 catalog is now ready for distribution and will be mailed to anyone addressing the home or any branch office of Fairbanks-Morse & Co., mentioning this magazine.

### Waterman Marine Motors.

The Waterman Marine Motor Co., of 1541 West Fort St., Detroit, Mich., have brought out this year a new model outboard or "Porto" motor which is the first change in design which has been made or thought necessary in this motor since 1906. The new model is so designed that it may be taken apart and used for stationary work or made into a direct connected pumping plant, being an all-around utility engine.

All those who have ever had occasion to use an outboard motor in a row boat, skiff or canoe will appreciate the advantages of the Waterman

# Does This Apply To You?

An insurance policy means property protection and security to every boat owner. That's why the wise prospective purchaser sees the absolute necessity of figuring insurance in with the initial cost of his boat. Our policies cover loss or damage from storms, collision, burning, sinking and other usual risks.

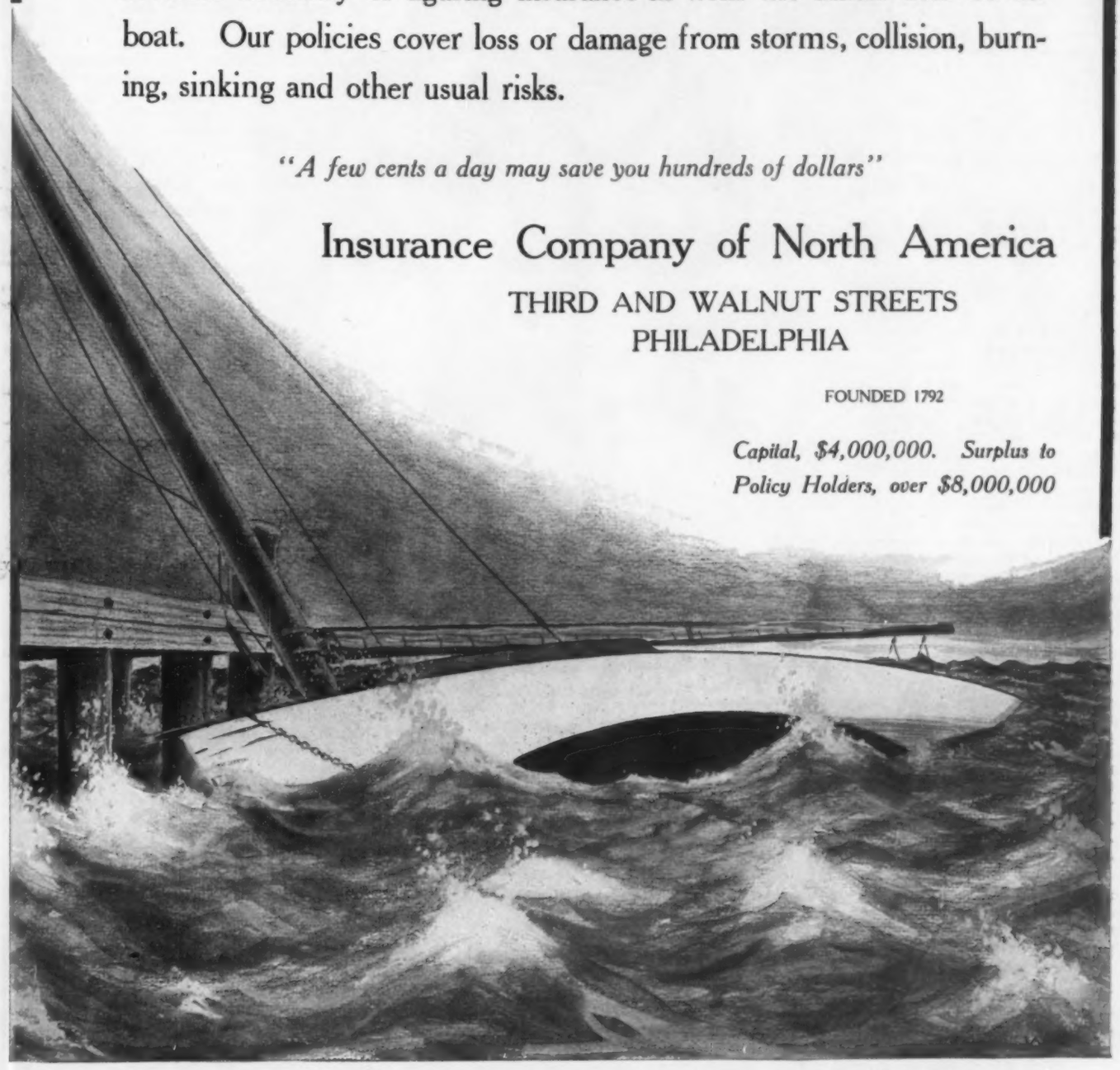
*"A few cents a day may save you hundreds of dollars"*

## Insurance Company of North America

THIRD AND WALNUT STREETS
PHILADELPHIA

FOUNDED 1792

*Capital, $4,000,000. Surplus to Policy Holders, over $8,000,000*



Consult YACHTING'S Information Department on any of your problems. Its service is absolutely free.

motor, which is known as the handiest little marine motor ever conceived. It is adjustable to any size of boat, or any type of stern, and will give as efficient service on a heavy dory as on a 10-foot yacht tender. It is a two-cycle high speed motor in 1½-H. P.

The Waterman Marine Motor Co. also make motors up to 30-H. P. in one to four cylinders. Their new model B-4, is a high-speed engine with aluminum crank case, spun copper water jacket, delivering 24-H. P. on a weight of 250 lbs. The regular models are closed base engines using Ball reverse gears on the large sizes and are lubricated through fuel supply. The prices range from $40 to $450.

### Buffalo Motors.

The Buffalo Gasolene Motor Co., of 1260-72 Buffalo, N. Y., will exhibit as a sample of their big line of gasolene motors in all models, the following sizes: 25-H. P. Auto marine Type, bore 4¾-inch, stroke 5-inch; 40-H. P. Auto Marine (a recently designed model similar to the 25-H. P. except that it has six cylinders instead of four) 4¾ by 5-inch; 3-H. P. Regular Type, bore 3-inch, stroke 4; 10-H. P. Regular Type, bore 3½ inch, stroke 5; 60-H. P. High Speed, bore 6¼ inch, stroke 6¾; 9-H. P. Heavy Duty. This is one of three new heavy duty models, 5 by 6 ½ inch, produced this season. It is similar in general design to the 12-H. P. and 18-H. P. heavy duty models, and is designed to fill a particular field in the powering of cruisers and work boats. 36-H. P. Heavy Duty bore 7 inch. stroke 9 inch; 24-H. P. Heavy Duty, bore 6 inch, stroke 7½ inch.

In a new catalog just off the press, and which may be had at the Show, the Buffalo Gasolene Motor Co. announces the production of a new Heavy Duty marine engine suitable for work boats and cruisers of the larger type. The new models are built in two sizes—125-H. P. and 85-H. P. the difference being that one has six cylinders and the other four.

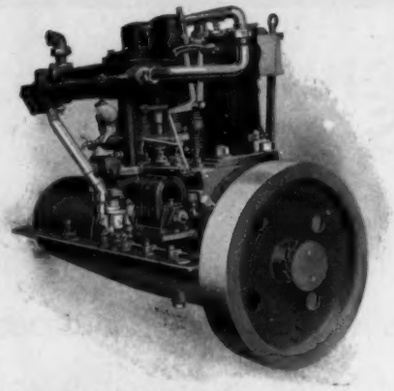
Like all Buffalo engines, these two are of the four-cycle type, and endurance and sure running qualities are made of first importance in their construction. They are 10-inch bore by 12-inch stroke and develop their rated horsepower at 300 R. P. M. with a minimum speed of 100 R. P. M. The weight of the 125-H. P. model including reverse gear is 11,000 pounds, while the 85-H. P. model weighs 7,300 pounds. As the accompanying cut shows, these engines are equipped with two carburetors, and also an air-starting device of high efficiency.

These engines were designed after a careful study of the needs of cruisers and the larger type of work boats, and it is to supply an engine exactly suited to these needs that their builders aimed. They supply an ideal power plant for cruising yachts.

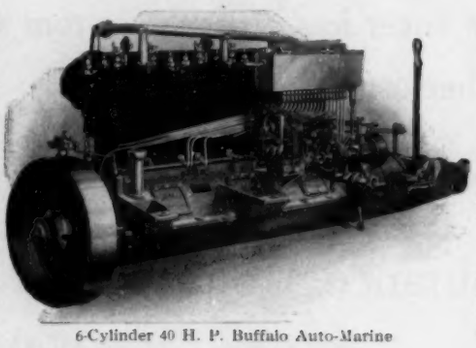
The new catalog also describes in detail all of the 20 models—3 to 125-H. P.—which constitute the Buffalo line. It shows the engines as well as if you saw them with your own eyes. It also shows scores of boats in which Buffalo engines are installed, and where possible tells just what each of these boats will do, so that the reader may know what may be expected from an engine of the same size under similar conditions. The catalog will be sent free upon request.

### Doman Engines.

The H. C. Doman Co., of Oshkosh, Wis., exhibit a representative line of their 4-cycle medium, heavy duty and high speed engines of from 6 to 100-H. P. in from 2 to 6 cylinders. This is a closed base engine using Paragon Reverse Gear with Detroit Force Feed oilers with splash to base. Among the new 1912 Doman models is a 6 by 8-inch heavy duty engine made in 1, 2, 3 and 4-cylinder sizes.

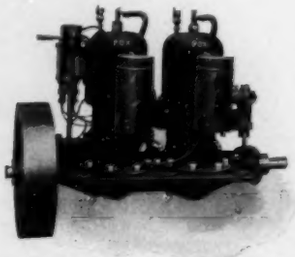


9 H. P. Heavy duty Buffalo Motor

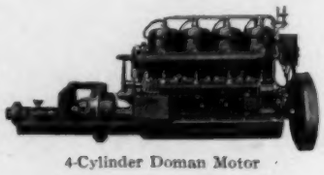


6-Cylinder 40 H. P. Buffalo Auto-Marine

Fox motor
1-cyl. heavy duty

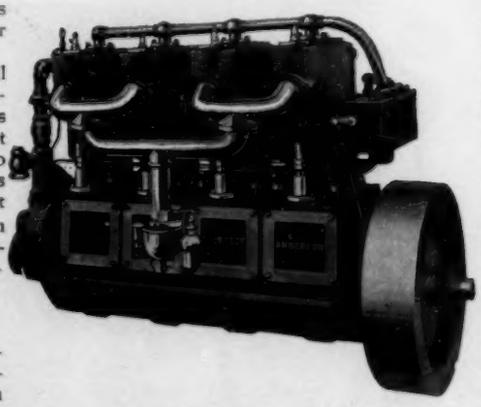


2-Cylinder 6 H. P. Fox Motor



4-Cylinder Doman Motor

A Guarantee: The Doman marine engines and motors are guaranteed by the H. C. Doman Co., to be built of the best material and to be in perfect working order when leaving the shop. If the motors fail in either of these particulars the Doman Company say they will replace the motor or engine, bearing all the expense thereto or refund the money.



Anderson 4-Cylinder 24 H. P. Engine

### Anderson Engines.

At the New York Show the Anderson Engine Co., of Chicago and Shelbyville, Illinois, are exhibiting a line of their 4-cycle medium weight engines in 4, 12, 24 and 50-H. P. The full range of the Anderson engines is from 2½-H. P. single cylinder to 150-H. P. six-cylinder. These are a closed base engine using Paragon or Baldridge reverse gear. Some of the improvements of the 1912 model are a self-contained reverse gear attached direct to the engine base and an air pump and magneto that have been added to the regular equipment. The Anderson Engine Co. lay special emphasis on the neat design, superior finish, reliability, and durability of their engines. The prices range from $75 to $3,000.

### Fox Motors.

The Dean Mfg. Co., of Newport, Ky., are exhibiting a line of their well known Fox marine Fox De Luxe engines for speed boats.
and aero motors, including the Fox Special and
The full line of Fox engines consist of 22 different sizes, as follows:

LIST OF SIZES.

| H.P. | Cyl. | Size | Type |
|---|---|---|---|
| 3½ | 1 | 3½x3½ | Fox Special |
| 7 | 2 | 3½x3½ | " " |
| 7 | 1 | 4½x4 | Medium Duty |
| 8 | 2 | 3½x3 | " " |
| | (with 4th port) | | |
| 10 | 1 | 5 x5 | " " |
| 14 | 2 | 4½x4 | " " |
| 20 | 2 | 5 x5 | " " |
| 21 | 3 | 4½x4 | " " |
| 30 | 3 | 3 x5 | " " |
| 5-7 | 1 | 4½x5 | Heavy Duty |
| 10-14 | 2 | 4½x5 | " " |
| 9-12 | 1 | 5½x6 | Fox Heavy Duty |
| 18-24 | 2 | 5½x6 | " " " |
| 60 | 4 | 4¾x4¾ | Fox De Luxe |
| 90 | 6 | 4¾x4¾ | " " " |
| 120 to order only | 8 | 4¾x4¾ | " " " |

Considerable advance has been made by the Dean Mfg. Co. along the line of light-weight high speed motors in recent years, and the Company is now putting out a 60-H. P. motor which weighs only 200 pounds. The Fox motor is a 2-cycle engine made in heavy duty, medium and high speed models. The prices range from $75 to $1,350.

The new catalog of 1912 Fox motors has just been issued and is the most complete ever put out by the Dean Mfg. Co. It may be had at the Dean booth, or by addressing the Dean Mfg. Co., 212 Front St., Newport, Ky.

### Clifton Engines.

The Clifton Motor Works of 231 East Clifton Ave., Cincinnati, Ohio, manufacturers of the Clifton marine engines, exhibit a line of their 4-cycle, heavy and medium duty engines. This Company make a complete line of motors from 10-H. P. 2-cylinder to 150-H. P. 6-cylinder

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## YOU'LL BUY A

# PATTERSON BATTERY SET

## For Your Motor Boat Ignition!

Patterson "Multiples" have Renewable Units !

From $5.00 up to $30.00

## So why not NOW?

## And From This Season Forget all Battery Troubles!

OVER 16,000 ARE IN USE, BECAUSE THEY SAVE MORE THAN THEY COST

At all Dealers or of

Send for 16-Page Art Catalog, No. 101

## Stanley & Patterson

SOLE MANUFACTURERS

New York, U. S. A.

Old Style Binding Post cells may, in emergency cases, be readily used in all Patterson Outfits

in both closed and open base. The 1912 model shows various improvements in oiling system, reverse gear, timer, etc. Prices range from $200 to $3,000.

### Barber Engines.

The Barber Brothers of 500 East Water St., Syracuse, N. Y., are putting out for 1912 a new size engine, 8 by 8 inches heavy duty model. This concern makes a 2-cycle, 3-port engine from 2½ to 120-H. P. in one to six cylinders, the powers ranging from 2½ to 20-H. P. per cylinder. It is a closed base engine lubricating through gasolene or by multiple oilers. An improvement in the 1912 model is the mounting of timer with single unit dash coil on the engine. They have adjustable heads, large bearings, perfect water circulation, hand forged crank shaft and connection rods, and the Company claims that all parts are very accessible. Prices range from $75 to $1,000.

### Gray Motors.

The Gray Motor Co., of 240 United States Motors Building, Detroit, Mich., are exhibiting at the N. Y. Show a complete line of their 2-cycle heavy duty and and high speed motors in from 3 to 36-H. P. including their new model U 3-H.P. single and 6 H. P. double cylinder motors.

The Gray line consists of the following sizes:

Model R, single cyl. 3½, 4½, 6-H. P. Model R, double cyl. 12-H. P. Model T, single cylinder, 7, 8, 12; Double cyl., 14, 16, 24-H. P. and 21 and 36-H. P. triple cyl. and the new model U, Gray Flyer Double cyl. 6-H. P. and Gray Leader Single cyl. 3-H. P.

The price range is from $55 to $454, including equipment.

The Gray Motor Co. will be glad to give special facts and information in regard to these new models at the show or by letter.

Owing to the big increase in their marine engine business the past year the Gray Motor Company of Detroit, Mich., have decided to give up their business of handling a line of accessories in order to devote their entire attention to the marine engine end of their business.

During the rush season in the spring and early summer it was found that the business of handling accessories, especially in the shipping department, interfered with keeping up to the schedule of the marine engine end of the business.

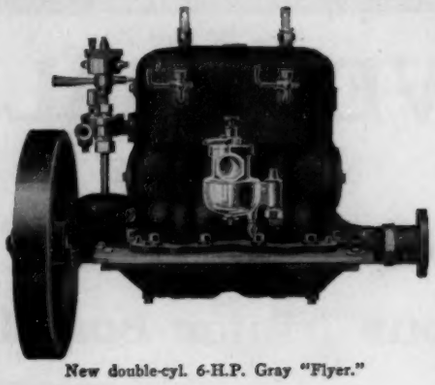
The Emmons Specialty Co., of Detroit, Mich., will take over the accessory business of the Gray Company and carry it on under the new name. Mr. E. M. Emmons, who will have the management of the Emmons Specialty Co., has been with the Gray Motor Company for a number of years.

### Knox Motors.

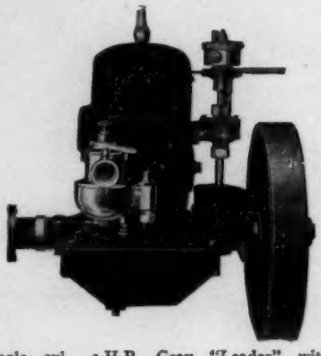
The Camden Anchor-Rockland Machine Company, Camden, Maine, manufacturers of the Knox Motor in speaking of their 1912 type with reference to changes, say their 1911 model has given such general satisfaction and has proved so enduring and reliable that they believe the old motto "leave well enough alone" is a good stand for them to take for the coming year.

The changes that have been made are in the minor parts, the object being to increase reliability and durability, if possible. Igniters this year on the make-and-break type are made of solid bronze; movable electrodes run in a cast-iron bushing, which is interchangeable, thereby allowing the operator to save the plug and simply replace the bushing when worn.

The circuit breakers on the multiple motors are arranged to operate with one lever. A slight change has been made in the carburetor, which makes it even more flexible than in 1911.

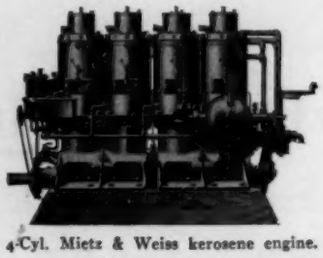


New double-cyl. 6-H.P. Gray "Flyer."



New single cyl., 3-H.P. Gray "Leader" with Krice carburetor.

2-Cyl. heavy duty Knox engine.



4-Cyl. Mietz & Weiss kerosene engine.

Evinrude detachable motor attached to stern of rowboat

The auxiliary air check valves have been increased in size and fitted with a shutter throttle, which allows the introduction into each cylinder independently of sufficient air to give best results.

The jump spark models have given perfect satisfaction, and the demand for this model is increasing each month. It was their 3-H. P. jump spark motor, fitted with Perfex system, that was installed in the Sea Bird which made the trip across the Atlantic Ocean. The Camden Anchor Co., is sending on request, circulars giving a brief history of this trip. For heavy duty work the make-and-break type seems to be in greater demand, and is giving better satisfaction among the fishermen on the Atlantic Coast. The full line which the Camden-Anchor Co. manufacture consists of the following sizes: 3 to 7½-H. P. single cylinder; 9 to 20-H. P. 2-cyl; 22-H. P. 3-cyl. and 40-H. P. 4-cylinder, in addition to the new one just mentioned. These are heavy duty engines, in 2 and 4-cycle types.

About six years ago this Company started a boat building department in connection with their motor plant. At that time they supposed their two boat shops were large enough for the work, one being 60'x40' and the other 30'x20'. The demand, however, for boats has been so great and the sizes have been increasing so rapidly, that in the Fall of 1911 they were forced to fit up a new boat shop. They have now a new shop, the dimensions of which are 150'x60', which enables them to build boats up to 100' under cover.

Their standard boat, known as a "Yawl Launch" has been selling so rapidly the company have found it impossible to keep even a small stock ahead.

Catalogues of the Knox Motors and circular describing their boats, etc., will be mailed upon request.

### Mietz & Weiss Oil Engines.

The Mietz & Weiss Marine Oil Engines are built in units from 2 to 600-H. P. in both the reversing gear type to 60-H. P. and beyond in the direct reversible type, in the latter case the engine shaft being coupled directly to the propeller shaft and the engine itself being reversed by means of compressed air furnished by a small air compressor mounted on the engine shaft and driven therefrom.

These engines are operated by kerosene, fuel oil, distillate and crude oils at a consumption of a gallon per 10-H. P. hours under full load. Gasolene fuel is not used in these engines, and complicated electric ignition devices, carburetors, vaporizers, cams, gears, valves, etc., are entirely eliminated, thus insuring the user a safe, simple, reliable, durable and most economical power.

The makers say that running a 100-H. P. Mietz & Weiss oil engine full load for 10 hours per day on three-cent fuel against the same size engine using nine-cent gasolene will effect a saving in favor of the former of $1,800 per year. This saving per year represents a capital in the bank of $36,000 at the rate of 5% interest.

The manufacturers of these engines will show their different types of marine and stationary type oil engines at the coming New York Motor Boat Show at Madison Square Garden and will be glad to meet those interested at their booth or at the factory at 134 Mott Street, New York City, where further information will be cheerfully furnished.

### Evinrude Motors.

The Evinrude Motor Co., of 252 Reed St., Milwaukee, Wis., show one of their detachable motors for row boats and canoes which will appeal particularly to the fisherman and those who de-

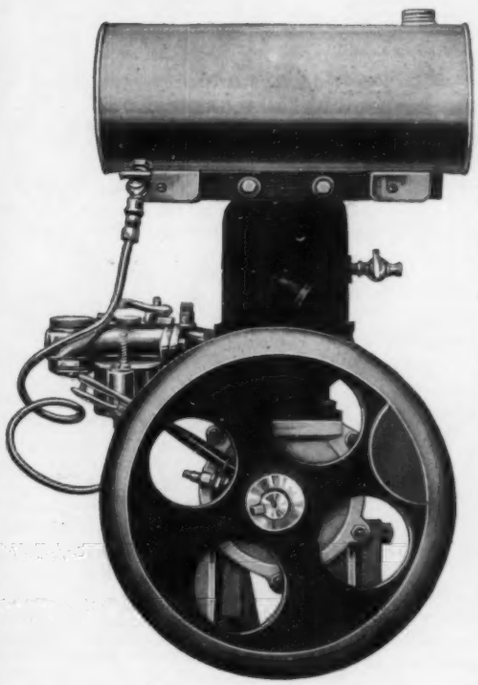
HERE is the handiest little Marine Motor ever conceived—the original PORTO MOTOR, famous the world over and now adapted for also running a hundred different small machines ashore. Simple—light—strong—the greatest power per pound of weight that any motor has ever offered.

## Makes A Motor Boat of *Any* Boat in Five Minutes and also "Makes Good on Shore"

In less than FIVE MINUTES you can slip this two horse power engine on the stern of an 15 ft. row-boat and it will drive it seven miles an hour, for four hours on ONE GALLON of gasoline.

In FIVE MINUTES you can take it off again, fasten it to the portable base and slip on either the belt pulley or the pump jack and you have a stationary engine for you machine shop, your laundry, your barn, your garage or any other place desired.

It will saw wood, pump water, turn a lathe, work an air compressor or drive a small dynamo. It will run an emery wheel or a feed cutter. With the Rotary Pump which we supply if desired, at a low figure, it will give you a water works system for your summer home and furnish fire protection as well. Pumps 25 GALLONS A MINUTE. Its uses are too numerous to mention.



### Complete Equipment as Follows:-

For Marine use regular equipment includes propeller, rudder, steering gear and muffler. For stationary use either belt pulley or pump jack and portable base. Rotary pump—a dandy for Bilge-pump at a right price. You can have any or all this equipment at low cost.

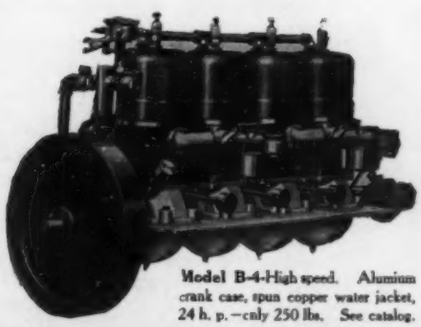
### SOLD ON 30 DAYS FREE TRIAL

Write quick for our new "Two in One" Catalog, mailed free. Orders filled in order of receipt.

**WATERMAN MARINE MOTOR CO.**

**1541 W. Fort St., Detroit, Mich**

Agents-Dealers—Here is the livest proposition that ever coined you a dollar—it will coin you many if you act promptly. Some good territory left. Write or wire.



Model B-4-High speed. Aluminum crank case, spun copper water jacket, 24 h. p.—only 250 lbs. See catalog.

Model K-1 and Outfit-2 h. p. for any paddling canoe or small boat. Engine and entire outfit weighs only 55 lbs.

# Two in One

## The New Waterman "PORTO MOTOR"

## On or Off in Five Minutes

sire a small motor for yacht tenders. It is a two-cycle, high-speed motor of 1¼-H. P. at 800 R. P. M. and it is designed to give the greatest power on a limited weight as has high compression. The weight of this motor is only 50 pounds and it clamps by means of thumb screws on the stern transom of a row boat, the propeller working in an adjustable sleeve to give it any desired length necessary to fit any particular boat. There is also an attachment for fitting it on the side of a canoe, the propeller shaft being arranged to turn at right angles to the cylinder and clamp in that position.

All material used is of the best, the propeller, hub, shaft sleeve, and circulating pump being of bronze for salt water use. It is extremely simple, and is a strong, serviceable engine of a substantial type and not a plaything. It comes equipped with jump spark ignition system and the coil and battery are contained in a small portable box.

Prices $65 fresh water equipment; $68 salt water.

### The New Kermath Motor.

The Morton Motor Co., of 47 East Fort Street, Detroit, Mich., are exhibiting their 4-cylinder, 4-cycle 3½x4", 10-12-H. P. motor at the New York Show. This motor will undoubtedly attract much attention as it embodies only those conservative principles of construction which the ablest automobile engineers have come to recognize as standard.

The 4-cyl., 4-cycle motor has been developed by automobile manufacturers into a perfect power plant, and is now the standard in 95 per cent. of the cars. The general use of automobiles has familiarized motor boat owners with this type of engine, and its admirable qualities of reliability and flexible control have inspired confidence. There has, as a result, arisen an insistent demand for a high-grade, 4-cyl., 4-cycle marine motor, at a reasonable price. The Kermath is designed and manufactured with a view to meeting this demand.

Comparing its weight, 330 pounds, with its rating, 10-12-H.P., at 800-1,000 R. P. M., there is no huskier marine motor on the market. Its 1⅜-inch crankshaft, 1¾-inch valves, long pistons, 9-inch connecting-rods, three long main bearings, enclosed tappets and valve-stems, its simple and efficient lubricating system, and conservative, "classy" design, are features calculated to meet the approval of the most critical gas-engine expert.

The Morton Motor Co. are the selling agents of the Kermath Motor, Mr. Harry Morton being the president of the Co. The sales company have recently gotten out a very attractive booklet concerning their motor, and containing a strong argument for taking to the water for pleasure.

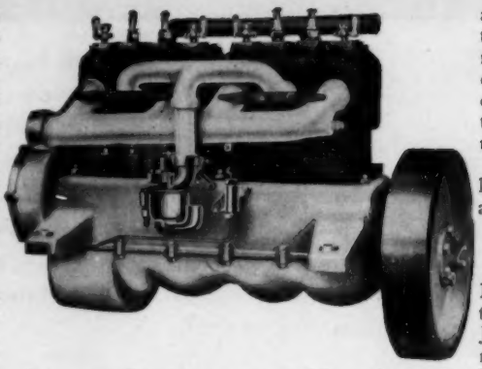
### Hartford Motors.

The Gray & Prior Machine Co., of 656 Suffield St., Hartford, Conn., are the manufacturers of the 2-cycle Hartford Motor, which is very generally used in New England and wherever a reliable sturdy heavy or medium duty motor is required.

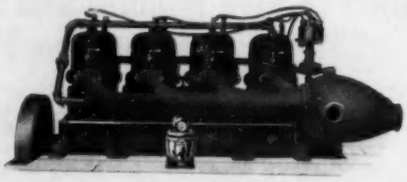
They are made in five sizes, from 3 to 10-H. P., in one and two cylinder models. Price range from $100 to $365.

The engines have split adjustable bearings made in halves, are closed base and use a gravity oiling system. The Ball reverse made by the New York Gear Works is used with the Hartford engine.

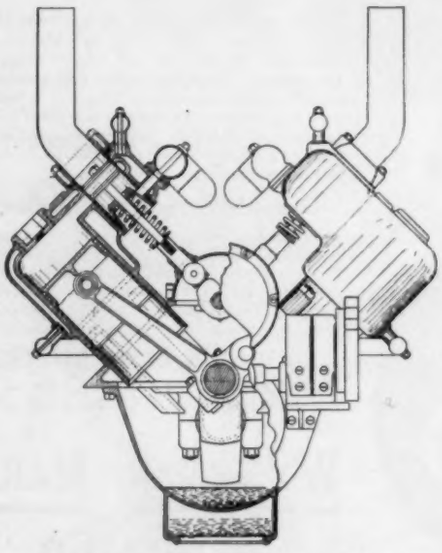
Special attention is given to testing Hartford motors before they are placed on the market



4-Cyl. 4-cycle Kermath motor, 10-12-H.P., weight 330 lbs.



Intake side 4 cyl. Leary 4 port engine



Trebert 80-100 H. P. 8-cyl. V type special racing engine.

The Elbridge "Go Devil" equipped with 40-60 H. P. Featherweight Motor

and every one of them turned out must come up to the most rigid requirements and stand the minutest examination. The horsepower of these engines is guaranteed by the Gray & Prior Machine Co. Special attention and care are given to workmanship and only the best materials are used.

Catalog "M," describing these engines, may be had by addressing Gray & Prior at the above address.

### Leary Gasolene Engines.

The Leary Gasolene Engine Company, of 1552 Dewey Avenue, Rochester, N. Y., are manufacturers of a 2-cycle, 4-port engine, designed by Mr. John J. Leary of the Leary Company, being the result of 16 years of experience and effort, in knowledge gained in the manufacture of gasolene engines. To overcome the faults of the three-port engine the Leary engine is designed with two sets of openings, or intake ports, and each set is supplied with a separate carburetor. The proportion of one set of ports is designed for ordinary speed, and when more power is desired opening the throttle of the auxiliary carburetor brings the extra set of ports into action and delivers high power with smooth and silent running, so that the engine responds readily to the throttle.

The Leary engine is made in 5, 10, 15 and 20-H. P. in one, two, three and four cylinders, with 3¾" bore by 4-inch stroke, and deliver their power at 800 R.P.M. They are made in both iron and aluminum base, the price ranging from $150 to $487.

The Leary booklet and catalog gives a complete description of this engine, with principle of design and details of construction. It may be had for the asking.

### Trebert Engines.

The H. L. F. Trebert Engine Works of 495 St. Paul St., Rochester, N. Y., have added new engines to their line for 1912 that will be particularly interesting to the owners of racing boats. These are a 4 and 8-cylinder piston valve engine, and 6 cylinder 4-cycle revolving valveless aeroplane engine adapted for marine purposes.

The regular line consists of four 6-cyl. vertical 4-cycle engines, ranging from 40 to 90-H. P.; and 4-cyl. vertical and 8-cyl. "V" type in from 40 to 80-H. P.

The cut accompanying this shows the 8-cylinder "V" type special piston valve racing engine of 80 to 100-H. P. weighing but 540 lbs. complete. The extreme width of this engine is 26½ inches; between keelson for foundation, 14½ inches; extreme length 45 inches including reverse gear, and 27 inches across cylinders with 7 inches from center of shaft to bottom of oil pan. It is a fine looking piece of work and will be sure to interest all users of high speed boats.

### Elbridge Engines.

The Elbridge Engine Co., of 22 Culver Road, Rochester, N. Y., have been working for several years to produce the utmost in gas engine power at a minimum of weight and bulk. The degree of success which their product has met is attested by the use of their motors for high speed boats and aeroplanes.

Not content with offering a general purpose motor of maximum power for weight the Elbridge Company for 1912 has developed a series of highly specialized engines for particular service; for example, the Baby Featherweights for light, fine tenders; the 30-H. P. Type C for V-bottoms; types A and B for medium speed launches and runabouts; and the Elbridge Feather-

# The Finish Depends on the *FINISH*

A SAILORMAN can always tell you why he lost the race, but we can't excuse him if his hull has a "skin friction" which would stop a ferry-boat.

A hard, smooth, "plate glass" finish on your boat will win races for you.

The officers of this company are yachtsmen. What we now offer are special preparations they recommend and use themselves.

## FOUR OF OUR SPECIAL FINISHES FOR PRODUCING SURFACES FOR SPEED AND BEAUTY

BELOW W. L. ABOVE W. L.

### Kopper Kote

Natural copper color and Old Roman Bronze Green.

Consists of pure metallic copper combined with a liquid specified by the government as the best underwater preservative.

This coating dries hard and stays hard as metal plate. Does not dry out and powder off when boat is drydocked for the winter, but forms a surface good for several seasons. Covers more surface than paint and is easier to apply.

It is non-fouling. Stands salt water as well as fresh, and is unaffected by river or drainage waters containing acids or alkalies.

For wood or metal bottoms.

### Anti-Friction Paint

Consists of just the proper amount of PURE GRAPHITE for a highly polished result and is combined with the best known wood preservative. Retains its hard smooth surface all season. Does not soften, blister or foul — the bad features of "pot lead". It will materially increase the speed of any craft by reducing the "skin friction." More durable than the old method. It gives the maximum-speed surface for

RACING YACHTS,
AUTO BOATS,
ETC.

### Yacht White Finishing

By "treating" the oils used in this finish to a "varnish consistency" we have secured, without the aid of varnish, gums, etc., a glass polish finish on a beautiful hard, pure white.

The oils are elastic (varnish would not be), therefore the surface will not check or blister, and you have an "enamel" surface without the usual objectionable features of enamels.

This white remains white and can be kept clean with soap and cleaning powders without damage to its original surface. Faster and more handsome and durable than any paint or white lead known.

For metal or wood.

### Yacht White Under Kote

This is to be used for bringing the surface up for the finishing coat of Y. W. F.

In this we have combined pure sublimed white lead (which will not discolor like ordinary white lead) with a portion of French zinc oxide, together with a specially prepared oil.

The result is that we have produced a coating far superior to white lead and oil in elasticity, durability and a permanent white as well. This is ready to use, and three coats over new wood will produce the proper surface for finishing with Y. W. F.

## A NOVEL INTRODUCTORY OFFER TO YACHTSMEN

GIVE us the size and class of your boat, length over all, water line, beam, draught and approximate free board, and we will quote you a price on a case of finishes. Case will contain just the proper amount of Kopper Kote or Anti-Friction Paint (your choice), Yacht White Finishing and Under Kote Armstrong's Spar Varnish, deck paint, cabin enamel, seam composition, "boot top" striping, oil, turpentine, etc., together with brushes and tools necessary to do a splendid job at a saving to you of over 50 per cent on the Retail Price.

This offer has a time limit, so write at once. Where we have dealers we will issue you an order on them for the complete outfit, and the difference in their selling price will be charged to us.

ADDRESS YACHT DEPT.

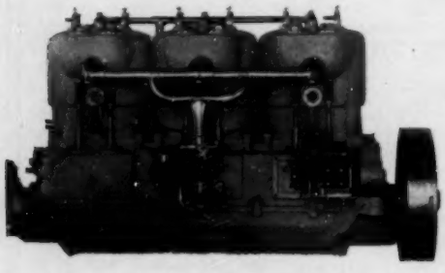
**Armstrong Paint & Varnish Works**

Established 1854 CHICAGO, U. S. A.

weights for racers, hydroplanes, and aero-hydroplanes.

In New York City the Elbridge Engine Company will be represented by Bruns, Kimball & Co., 132 Liberty Street, where all types of Elbridge Engines will be on exhibition. Any special information can be had by addressing the Elbridge Engine Co., 20 Culver Road, Rochester, N. Y., and mentioning that you are a reader of YACHTING.

A new vehicle which the Elbridge Engine Co., has recently invented and which is probably the fastest thing in the world, is a motor driven ice boat, the power being supplied by a 40-60-H.P. Featherweight engine turning an aeroplane propeller, the whole being mounted on a special frame of ice boat body with a seat for the helmsman at the after end. This has been named the "Go Devil" and has been driven at a speed approximating 140 miles an hour, a speed which the operator declared he did not dare surpass though he had power to do it. Sprockets and heavy chain connect the engines with the propeller shaft, and with a multiple gear the shaft can be turned twice as fast as the engine revolutions. There seems practically no limit to the speed which can be obtained in a craft of this kind.



Special 6-cyl. 45-65-H.P. Sterling engine for the Dixie Junior.

### Sterling Engines.

In the exhibit of the Sterling Engine Co., a very comprehensive line of their well known Sterling engines is shown.

The full line of their Sterlings consist of the following sizes:

Model C, heavy duty, 8-10, 12-15-H. P. 2-cylinder; Model D, heavy duty, 20-H. P. 2-cylinder; 25-35, 40, 60 and 100-H. P. in from 2 to 8 cylinders.

Model B, for speed boats, runabouts and semi-heavy cruisers, in 18-25, 25-40, 30-45, 35-55, 45-65-H. P., 4 to 6 cylinders. This engine is built in aluminum base for speed purposes and in iron base for cruising with heavy fly-wheel to operate at lower speed.

Two new engines which the Sterling people are putting out this year are a 130-140-H. P. 8-cylinder racing engine, so constructed that it can be suspended on three point bearing if desired, a feature which makes it particularly adaptable to use in hydroplanes. Another new engine is the 25-35-H. P. heavy duty long stroke cruising engine built to meet the popular demands for an engine for cruising work. It is built in 4 cylinders, 5½" bore by 8" stroke, turning up from 200 to 550 revolutions. This engine was designed for boats from 35 to 50 feet in length.

One of the engines at the Show which will attract great attention is a 45-65-H. P. 6- cylinder which is to go in the hydroplane Dixie Jr, ten of which are now being built from designs by Tams, Lemoine & Crane. For a boat of this size and speed the power plant is naturally an important factor. Reliability, simplicity and speed, and an engine capable of standing up under the most trying conditions, was demanded. The Sterling 6-cylinder 5½" bore and 6" stroke was selected, after careful consideration, by reason of its great mechanical efficiency and well-known reliability. This machine is rated at 45-65 horsepower but will develop about 85-B. H. P. at 1,000 revolutions and probably better than 95-B. H. P. at 1,200. Some slight alterations have been made to particularly adapt them to the continuous hard usage they will get. They can be relied upon to finish any race and are without question one of the smoothest and quietest running machines built.

A very attractive Sterling catalog describing all their engines with price of each may be had by writing the Sterling Engine Co., 1258 Niagara St., Buffalo, N. Y.

### Cragg Motors.

The Gilmore-Cragg Motor Co., of 607 Wayne County Bank Building, Detroit, Mich., manufacture a 2-cycle engine in from 1 to 36-H. P. which they are placing on the market for 1912.

These are a jump-spark engine, the spark plug being in the center of the cylinder head where the charge gets the full effect of the spark, eliminating to a great extent the errosion of the spark plug. There is a complete vibrating spark coil and switch mounted on the spark plug without any secondary wiring giving a very hot spark at low battery consumption. It fits any plug; is easy to install and remove and does away with unsightly wiring as it requires but one wire for primary circuit. Mistakes in connecting up are impossible, and it is proof against water, heat or carelessness.

Sizes. The smaller engines come in 1½-H. P. 1-cyl. and 3½-H. P. 2-cyl.; the latter with the fly-wheel either forward or aft of cylinders, as desired. These are a 3-port engine. Prices from $37 to $75. In the 2-port motors the sizes run 4½, 6-7 and 9-10-H.P. Single cylinder; 8-10, 10-14, and 18-20-H. P. 2-cyl. and 18-20 and 30-36-H. P. 3-cyl. Prices $90 to $470. Range of speed 600 to 800 R. P. M.

The Gilmore-Cragg catalog is ready for distribution and may be had on request to the above address. This Company also makes a very liberal trial offer to prospective purchasers.

### Scripps Motors.

The Scripps Motor Co. of 657 Lincoln Ave., Detroit, Mich., have added to their regular line for 1912 three new sizes, in a 2-cyl., 4-cyl. and 6-cyl., 7½" bore by 9" stroke, engine, turning up 400 R. P. M.

The Scripps is a 4-cycle motor, made in medium and heavy duty types, and the line is very complete, ranging from 4½-H. P. to 105-H. P. in from 1 to 6 cylinders, with wide speed range. They are a closed base engine, jump spark ignition, have splash oiling system and Paragon reverse gear. Prices from $190 to $3,500. Their 1912 Catalog giving complete details may be had by addressing as above or calling at their booth at the show, where they have on exhibit a line of their engines.

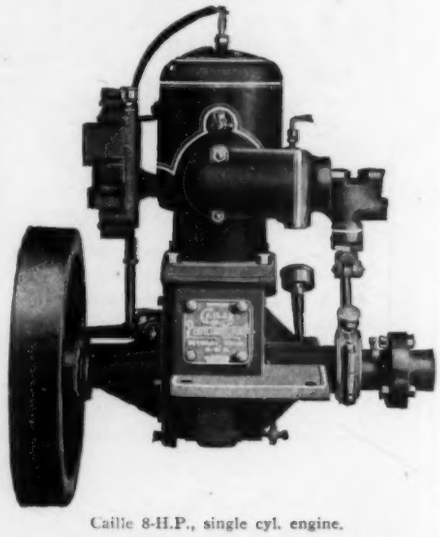
### Vim Motors.

The manufacturers of the Vim Motor have established a new mark in marine gasolene engine construction, the new features being embodied in their 1912 product. These great improvements have been perfected by Geo. Holloway, superintendent of the Vim plant, who for the last 15 years has stood in the foremost ranks of two-cycle engine designers. He has perfected a positive non-backfiring device, this device being used exclusively by the manufacturers of Vim Motors. Its merits lie in the fact that it not only absolutely prevents backfiring but gives the motor wonderful control and reliability.

Another feature worthy of mention is the one-adjustment carburetor, the needle point which regulates the flow of gasolene being automatically controlled by the throttle so that the proper mixture is distributed into the cylinder at any speed of the motor. The air is also controlled automatically by a number of floating balls eliminating the use of a spring actuated valve.

The 1912 Vim Motors have been equipped with a double system of ignition, the Bosch Magneto being used in connection with a battery system. Among other features may be mentioned a water jacketed exhaust manifold through which the intake and outlet water passes from the cylinders; a small valve for permitting sufficient water into the exhaust pipe to condense the gases and accessible hand hole plates permitting adjustment of the connecting rod bearings without removal of the cylinder.

This company manufacture in addition to a line of medium speed and heavy duty, 2-cycle motors in from 3 to 55-H. P., 1 to 4 cylinders, a well designed and complete line of high speed racing motors. These racing motors are equipped with a double system of separate and independent ports (covered by patents) the object of the double-port system being to increase the port area so that a full charge of fuel may be admitted at extreme high speeds. Two-cycle motors ordinarily develop their maximum power at 900 revolutions per minute, however, the Vim Motor with its new port system develops its maximum at 1,300 revolutions per minute.



Caille 8-H.P., single cyl. engine.

### Perfection Motors for Hard Service.

In the hunt for a hard working, heavy duty engine that will stand up under the most strenuous conditions of weather, the claims of the Caille Perfection Motor are bound to receive careful consideration. Believing that most of the engine troubles are due to the ignition system, especially in engines exposed to the weather, the Caille Co. have perfected an ignition system that they guarantee water proof, and consequently trouble-proof.

This Perfection igniter requires only one wire for the whole ignition system, that from the spark plug to the igniter, which, is mounted on

# TILLER ROPE

Your safety and your Boat's safety
depend upon its Quality and strength.

THEREFORE.—Insist upon having your boat equipped with the very best tiller rope that you can buy. The best is

## Waterproof Linen Bronze Centre Tiller Rope

Our T&C BRAND WATERPROOF TILLER ROPE is made of the best grade flax yarn containing a bronze rope centre, and will neither rust, shrink or stretch. The flax yarn being waterproofed is impervious to weather. It is very flexible and will outwear any other known material under almost any ordinary working conditions. It is not only the most economical rope that you could use but is of the greatest convenience as it needs no further attention after being adjusted.

The bronze rope is made under a special analysis to give greater service than anything used for a similar purpose, and is fully covered by patent granted December 24th, 1901.

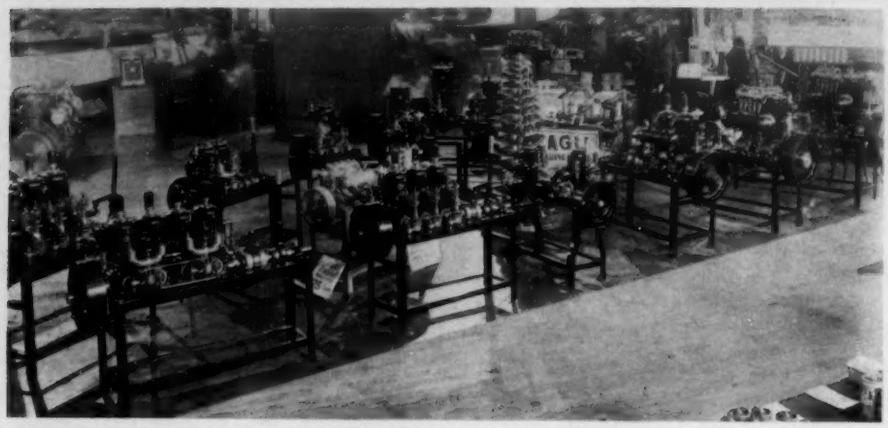
**MADE IN THE FOLLOWING SIZES**

1-4" Waterproof Linen Bronze Centre Tiller Rope
5-16" Waterproof Linen Bronze Centre Tiller Rope
3-8" Waterproof Linen Bronze Centre Tiller Rope

Put up in coils of 1,000 feet each.

We are also manufacturers of all lines of Cordage, consisting of Yacht Rigging, Cotton Rope, Cotton Sail Twine Caulking Cotton, etc. See our Exhibit, Space 59, Madison Square Garden Motor Boat Show, New York.

**Tucker & Carter Rope Company**
**76 South Street and 167 Maiden Lane**
**Warehouse: 158 Front Street**
**NEW YORK CITY**
FACTORIES:
Tuckertown and New London, North Carolina.



Group of 1912 Eagle engines exhibited at the Boston Motor Boat Show.

the forward side of the engine.

The Caille is a two-cycle motor made in from 2 to 30-H. P. from one to four cylinders and the engines develop their power at from 600 to 1,000 R. P. M. Their new 1912, 8-H. P. single cylinder heavy duty is especially adapted for heavy open launches, cruisers or work boats that have to be out in all weather at all seasons. It has the Perfection Igniter, is extremely simple and will start on ignition. It sells at $140.

### Eagle Engines.

The Eagle Engine Co., of 98 Warren St., Newark, N. J., are exhibiting one of the largest lines at the Show, and with the new facilities which the Eagle Company added to their plant in 1911, the 1912 product should give even more satisfaction than before. The mechanical engineers of the Eagle Company have devoted their exclusive energies to the perfection of these engines, the result being a general refinement in all the 1912 models.

The Eagle is a two-cycle engine made in both jump-spark and make-and-break ignition in the following sizes and distinct types, the larger engines being fitted with Paragon Reverse gears:

HIGH SPEED TYPE.

Light Weight, Jump Spark Ignition only.

| MODEL | H.P. | SPEED | CYL. |
|---|---|---|---|
| G | 3 | 800 to 1000 | 1 |
| 2G | 6 | 800 to 1000 | 2 |
| H | 4½ | 800 to 1000 | 1 |
| 2H | 9 | 800 to 1000 | 2 |

MEDIUM SPEED TYPE.

Jump Spark or Make-and-Break Ignition.

| MODEL | H.P. | SPEED | CYL. |
|---|---|---|---|
| A | 1½ | 600 | 1 |
| B | 3½ | 600 | 1 |
| 2B | 7 | 600 | 2 |
| 3B | 11 | 600 | 3 |
| 4B | 15 | 600 | 4 |
| C | 6 | 600 | 1 |
| 2C | 12 | 600 | 2 |
| 3C | 18 | 600 | 3 |
| 4C | 25 | 600 | 4 |

HEAVY DUTY TYPE.

Jump Spark or Make-and-Break Ignition.

| MODEL | H.P. | SPEED | CYL. |
|---|---|---|---|
| F | 2½ (over 3½ actual H. P.) | 575 | 1 |
| D | 5½ | 450 | 1 |
| 2D | 12 | 450 | 2 |
| E | 7 | 400 | 1 |
| 2E | 15 | 400 | 2 |

Prices range from $60 to $525, including complete equipment and having each article clearly and distinctly named.

### Emerson Engines.

The Emerson Engine Co., of Alexandria, Va., are the makers of 2 and 4-cycle, high-speed, light weight motors, particularly adapted to racing boats, runabouts, etc. The sizes run from an 8-10-H. P. 2-cycle, one cylinder engine to a 100-H. P. 4-cycle 8-cyl. 7½"x8" motor. By constant refinement, the use of high grade material and workmanship the Emerson Co. are enabled to turn out a very light engine for the power, their 100-H. P. 6-cyl and 60-70-H. P. 4-cyl. weighing but 325 and 225 lbs. respectively. These are racing engines particularly adapted to hydroplanes.

### Erd, Ideal, Van Blerck and Uncle Sam Motors.

The Gasolene Engine Equipment Co., of 133 Liberty St., New York, will have one of the largest engine exhibits at the Show, their space occupying about 1,300 square feet. This Company are the distributors for the Ferro, Van Blerck, Erd, Ideal and Uncle Sam Motors.

A complete line of the Ferro 2-cycle engines will be exhibited which will undoubtedly attract favorable attention.

Among the line of Erd motors will be a 2-cycle, lightweight, high speed type, in 4 and 6 cylinders.

The Ideal is a heavy duty, 4-cycle engine of extreme simplicity and reliability and will be shown in some of the larger sizes.

The Uncle Sam is a 2-cycle heavy duty engine for cruisers, auxiliaries and working boats.

The exhibit will be in charge of Mr. C. Von Culin and Mr. Wilbur H. Young of the Gasolene Motor Equipment Co., and it is expected that Mr. Erd, Mr. Emery and a number of the other manufacturers whose product they exhibit will be on during the Show week.

### Murray & Tregurtha Engines.

The Murray & Tregurtha engines which will be seen at the Show will attract the attention of those interested in a heavy, reliable type of engine for cruising or working boats.

The Murray & Tregurtha Co., of 340 West First St., Boston, Mass., are the makers of the Murray & Tregurtha engine which is noted for reliability wherever it has been used. This is a 4-cycle open base engine made in various sizes, the 60-H.P., 4-cylinder engine being particularly popular for cruising boats from 50 to 70 feet in length.

### Craig Engines.

Craig engines have been so long and favorably known to boat owners that the exhibit of James Craig at the New York Motor Boat Show will be examined very closely. This engine has earned an enviable reputation for itself under the hardest conditions. It was a Craig engine that won the first race to Bermuda and from that time down to the present year when a little one-cylinder Craig won most of the long distance races on the Atlantic coast, the standard of workmanship, material and finish have been maintained. This is a 4-cycle engine made in from 7-H. P. single cylinder to 300-H.P. 6-cylinder. During the past year Mr. Craig has moved his plant to 807 to 841 Garfield Avenue, Jersey City, N. J.

### Northwestern Motors.

The Northwestern Steel & Iron Works, of 302 Spring St., Eau Claire, Wis., are manufacturers of the Northwestern 2-cycle motor made in 2, 3, 4, 6, 10 and 20-H. P., in one and two cylinders.

Northwestern motors are a high duty, reliable engine developing their power at from 600 to 800 R. P. M. The prices range from $39 for the 2-H. P. up.

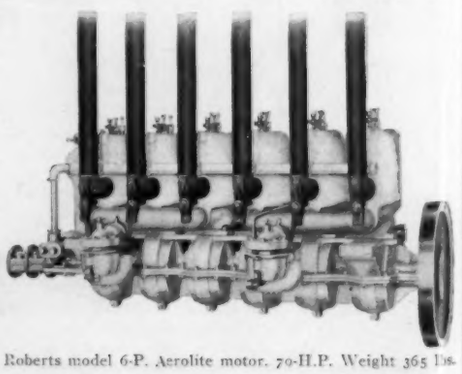
The Northwestern Motor Co. make a special proposition for the season of 1912 that will allow the purchaser to try the engine out thoroughly and if not absolutely satisfactory after 30 days' trial the manufacturers say that they may be returned and the money refunded. The Northwestern motors will be furnished equipped with Wico igniter at a slight additional cost if desired. The 1912 catalog is now ready for free distribution.

### Ferro Engines.

This is a 2-cycle engine in both high speed and heavy duty. The Ferro line consists of 3, 4, 5½ and 7½-H. P. in single cylinders; 8, 11, 15-H. P. in 2-cylinders and 12, 17, and 25-H. P. in 3-cylinder engines. They are closed base engines with a Ferro reverse gear bolted on to the engine crank case. They are equipped with a Ferro automatic pressure oil feed, while crank case compression is used to force oil to the bearings. This improved oiling system is new with the 1912 model. The new models are also equipped with the magneto and timer control. Prices from $60 for 3-H.P. to $360 for 25-H.P.

### Roberts Motors.

The Roberts Motor Co., of Sandusky, Ohio, exhibit at the Show 6 out of their line of 12 two-cycle high speed engines, the full line running from 3 to 125-H. P. These engines are guaranteed not to back-fire and to be extremely economical in fuel. They show great refinement in design and construction. Among the most interesting of their motors are their Aerolite and featherweight types, which use for cylinders a special alloy termed Aerolite. This alloy has aluminum base which makes it exceedingly light.



Roberts model 6-P. Aerolite motor. 70-H.P. Weight 365 lbs.

# A READY POWER UNIT

When the screw snaps, or the engine stops or the rudder breaks, or the boom busts —and you are 'way out in the midstream, helpless, far from shore, out of calling and hailing distance—then you will wish you had an

## EVINRUDE DETACHABLE ROW BOAT MOTOR

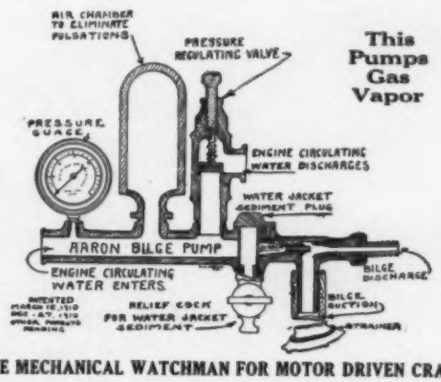
The cleverest and most reliable emergency device on the market. A little demon of a 1½ H. P. engine. Not a toy, or a "make believe." A true, serious "iron and steel" engine. Built on the same principle, as substantial and complete, as the mightiest motor made. A little giant. Works wonderfully. Never disappoints, displeases or "balks." Propels any load any distance as high as 8 miles an hour. Fits any style or size of rowboat—yawl, dinghy or cat. Light in weight. Compact in form. Can be carried anywhere. Easily and quickly adjusted. Costs little—worth a million. No craft is now complete without it. The Czarina of Russia has four for her private yacht. You'll want one, too, when you know all about it—because you will need it.

Send for the Book That Tells

**EVINRUDE MOTOR CO.**
268 REED STREET
**Milwaukee, Wis.**

*No More Explosions* on Gasoline Boats if you have an

# Aaron Automatic BILGE PUMP




**This Pumps Gas Vapor**

**THE MECHANICAL WATCHMAN FOR MOTOR DRIVEN CRAFT**

"Nothing moves but water, oils and gas." Draws out anything in a liquid form; its greatest asset is its factor of safety. Positively, preventing all danger of explosion of fire by drawing all gasoline fumes from bilge. This fact alone cannot be determined from a money value. No more pumping dirty bilge water through the water jacket when using this pump. Full information and prices submitted upon application.

**Aaron Automatic Bilge Pump Co.**
HOWARD BUILDING PROVIDENCE, R. I.
*Show Space—Basement*

# 140 MILES AN HOUR

The Fastest Thing In the World Is the Motor Ice-Boat "Elbridge Go-Devil." Designed by leading engineers to show the time and space annihilating possibilities of light-weight, high speed engines, used in connection with a well-built aero propeller. Of course the power plant selected was an

## Elbridge "Featherweight"

Elbridge Engines represent more power for weight than any others in the world, and power-for-weight spells economy and speed no matter where it is used. It is just as important in getting best results from a dinghy as from a racing hydroplane. Without power-for-weight in its engine the dinghy is possible, but the hydroplane, the V-bottom runabout, the Viper type or the "Bug" are useless.

## The Weakest Economy

in motor-boating is that of buying a cheap engine, poorly equipped, to begin with. True economy consists in buying first the best engine and equipment you can secure, then save money by reducing operating expenses. A poorly designed engine, a commonly built engine, or a heavy engine will waste more oil and gasolene in one season than the power plant cost to begin with. Look up your bills of last season!

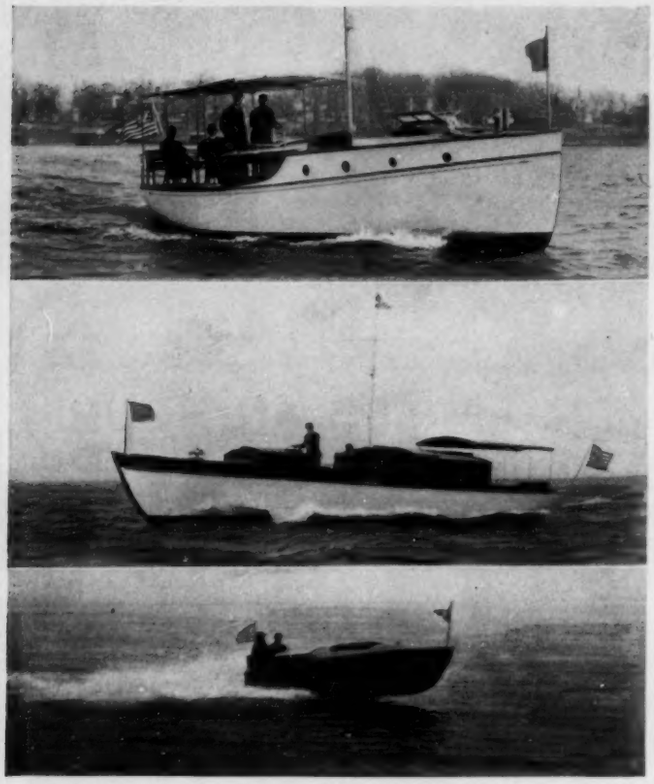
If you buy an Elbridge Engine you know you have something that will do just what we sold it to do; something that has a distinct standing and a good market value in case you outgrow it. Let us send you our catalog and explain what we have to offer to meet your particular engine requirements. Even a postal card will start something, if you don't care to go into details in your first letter.

Elbridge Type "A" Engines are made in one to four cylinders ranging in power from 3-H. P. to 20-H. P.; Type "B" engines, one to four cylinders, 6-H. P. to 30-H. P.; "Featherweight" Engines, 10-H. P. to 60-H. P.

**ELBRIDGE ENGINE COMPANY**
**22 Culver Road. Rochester, N. Y.**

**Bruns, Kimball & Company - New York Represenatitves**

## COMPLETE BOATS



Some of the Electric Launch Company's Exhibits. 40-Foot Elco raised deck cruiser; 53-foot Elco de Luxe; Elco 16-footer The Bug, speed 30 miles.

### Elco Boats and Engines.

The Elco exhibit at the Show is located, as usual, in the center of the Garden at the entrance to the arena, and includes a number of the well-known boats of this Company, of various types. First among these in point of size and appointments is a 1912 Elco-de-Luxe motor yacht which is similar in design to the boat exhibited last year, but with certain changes in equipment and construction.

The cabin enclosure is amidships, with large open cockpit fore and aft, affording the maximum cockpit and cabin space, these quarters being in the best part of the boat, which is made possible by the location of the propelling machinery forward.

The length of the 1912 Elco-de-Luxe is 54 feet, beam 9 feet, draft 2 feet 6 inches to 3 feet. Only the highest grade Elco construction is employed. The cabin interior is beautifully finished in special mahogany with passageway down the center with two sliding divan sofas on each size, full length clothes closets, mahogany desk, book cases, china and glass cabinets, and drawers for silverware. Lavatory and buffet compartment are provided aft of the main cabin with usual yacht fixtures, ice box, cupboards for dishes, fresh water supply, etc., etc.

The power equipment consists of a 60-H.P. 6-cyl. air-starting Standard gasolene marine engine located in the motor room forward. The Elco Co. guarantee from the boat with this power equipment a speed of 15 miles an hour, which is unusual for a boat of this length, beam and weight, the construction being heavy and substantial. Selling price fully equipped ready for service $10,500.

The Standard Motor Construction Company of Jersey City, New Jersey, will exhibit in their space a 40-ft. Elco Raised Deck Cruiser, 1912 model, similar in design and cabin arrangement to the Elco Cruiser exhibited at the 1911 Show.

This boat has cruising accommodations for 7 persons. She has a stateroom forward, with a large saloon aft of it, sleeping 4. She has a flush afterdeck giving her unusual deckroom. The power equipment is a 16-20-H.P. 4-cyl. Standard motor installed in a separate compartment in after end of cabin. The selling price of the complete boat fully furnished and fitted is $4,500.

The Elco Express boats to be exhibited at the Show will include a 35-ft. Elco Express, 1912 model, similar in general design to the 1911 express but showing a greater flare at the bow, higher freeboard, larger cockpit area. This boat has been developed to the highest state of perfection.

The length overall is 35 feet, beam 5 feet 3 inches, draft 24 inches. The hull is handsomely finished in selected mahogany, and is one of the most beautiful specimens of the boat building art ever exhibited. She is equipped with a 60-H.P. Elco engine and a speed of 24 miles an hour is guaranteed, or no sale. The price is $4,000.

A 28-foot Elco Express with a 40-H.P. Elco engine, giving her a speed of 20 miles is also exhibited. This sells at $1,950.

Probably the most interesting boats exhibited by the Elco Company will be the Elco-planes, on which the Company has applied for a U. S. Patent. Every one who has followed the development of the motor boat knows of The Bug, the tiny little 16-foot Elco-plane which last year defeated the 185-ft. steam yacht Helenita with 1,500-H.P., in a race down Long Island Sound from Huntington to New London, and won a cash prize of $5,000.

"The Bug" is a new type of hydroplane entirely different from the hydroplanes that have been built heretofore. With the Elco-plane the bottom planking of the boat is continuous and the Elco-planes are attached to the bottom of the boat to form the steps on each side on which the boat rests when planing. The planes are of bronze having a corrupted section giving them great longitudinal strength which materially stiffens the hull. The total weight of The Bug is 2,400 pounds, which means 40 pounds to the horsepower. This is worthy of comment because heretofore no hydroplane has proved satisfactory with a greater weight than 20 pounds per H.P. Price fully equipped, ready for service with guaranteed speed of 30 miles, or no sale $3,000.

The 20-foot Elco-plane, which represents the latest development of this design, is a boat that will attract a great deal of attention. Length overall 20 feet, beam 4 feet 6 inches, draft 18 inches. Highest grade Elco-plane construction with oak keel, sawn frames and yellow pine stringers and engine truss, the planking being of mahogany, copper fastened throughout; decks and interior finished in mahogany.

The engine is placed aft similar to that in The Bug, with the Elco forward drive. The passengers all sit forward, there being room for four people, the driver on the starboard seat with steering wheel and controls to motor within convenient reach. The power equipment consists of a 6-cyl. Elco engine, with which the phenomenal speed of 35 miles an hour is guaranteed by the Elco Co. or no sale. Price fully equipped $4,000.

There will also be exhibited a 25-foot Elco electric launch, with a battery capacity enabling her to cover 50 miles on one charge. This sells for $2,000.

A line of the Elco gasolene marine motors will also be on view at the Electric Launch Co.'s space and a new 150-H.P. 6-cyl. American Nurnberg heavy oil engine of the Diesel type, and built by the New London Ship & Engine Co. This engine type should prove of great value for large yacht service on account of its great economy.

Rice Bros. 20-foot fast runabout and special launches.

### Rice Bros. Fast Runabout.

The Rice Brothers Co., of East Boothbay, Maine, are exhibiting one of their 20-foot Fast Runabouts. This is a stock boat 20 feet in length overall by 4 feet 4 inches beam and 17 inches draft. This is one of the stock boats which the Rice Company build, which in construction, material and finish is one of the best boats on the market at the price. It has extremely fine lines and all fittings and appointments are of the best.

The material used in these launches is as follows: stem, keel and frame, clear oak; planking white cedar, fastened to wood with brass wood screws of large wire; clamps and bilge stringers, spruce; top streak and stern, oak; deck, seat backs and battens, mahogany; seats and ceiling, cypress.

# The High Water Mark In Value
# The Low Water Mark In Price

A boat for the least money which rejects every characteristic of commonplace construction. :: :: :: :: ::

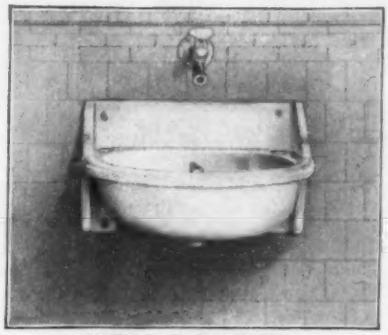
Make no mistake; we can give you the kind you are looking for—look us up. :: :: :: :: :: ::

**THE BAYONNE LAUNCH CO.,**
BAYONNE, N. J.

**East 36th Street & New York Bay,**
Take C. R. R. of N. J. to 33rd Street, Bayonne

**(PURITAN) OWNER'S SPECIAL (SET)**

with Spring Cock, Closet and Lavatory Complete
**$40.00**
Net Cash



with (Fig. 250) Pump, Closet and Lavatory Complete
**$45.00**
Net Cash

INSTALL IT YOURSELF
With My Patented Outboard Connections (it's so easy)

NONE BETTER

NONE BETTER

Closet only with all Fittings. $31.00 Net Cash

**GUS. A. DIEM, 20 Fulton St., N. Y. City**
Look for it at the New York Show

# 1 to 3 Miles Per Hour Increase Guaranteed

Many a motor is being blamed for lack of power, many a boat for lack of speed—merely because they are not equipped with efficient propellers. Before you replace your motor or sell your boat, give it a fair chance with a B. & B. Propeller.

The surest way to secure maximum speed from any boat is to fit it with a genuine B. & B. wheel in the first place. Don't take chances or handicap your boat with anything else.

Whenever you have occasion to buy or specify a propeller, whether it is for an old boat or a new one, remember our standing guarantee, five years old, to increase the speed one to three miles per hour with the B. & B. wheel.

Look for our name stamped on the hub of every genuine B. & B. Propeller and don't be misled by substitutes that look nearly like it. Even if they were cast from identical patterns, no substitute would be equal in material, finish or durability.

**Bryant & Berry Company**
**28 West Atwater Street, Detroit, Michigan**

WE WANT READERS of YACHTING to call on the services of YACHTING'S new Information Department whenever they are troubled with boat or engine difficulties of any kind. The very best authorities on every phase of the boat problem will cheerfully answer all inquiries.

THESE SERVICES ARE ABSOLUTELY FREE. This department has been instituted as a *service department* for readers, and we hope they will make *liberal use of it*.

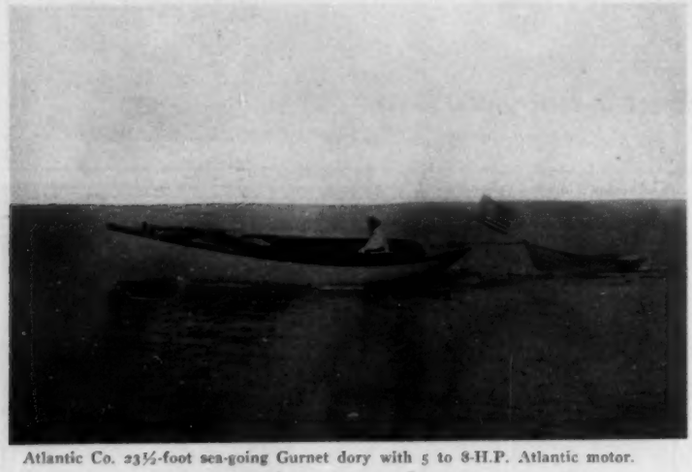
Inquiries will be answered *promptly*. The most expert of advice on all matters pertaining to boating in all its phases is now available to YACHTING readers *free of charge*. Address inquiries to

**YACHTING'S INFORMATION DEPARTMENT, 141-145 West 36th St., New York**

Consult YACHTING'S Information Department on any of your problems. Its service is absolutely free.

The power in the Special is a 4-H. P. single-cylinder jump-spark Rice motor which gives the boat a speed of a little better than 8 miles an hour. The propeller is 13½ inches diameter x 15 inches pitch on Tobin bronze shaft. The whole outfit is very complete and is finished in a workmanlike way. Price $275.00.

The other boat which this Company makes is the 20-foot fast runabout of practically the same dimensions as the other, but equipped with an 8-10-H.P. Rice 2-cycle jumpspark motor with reverse gear turning a 14½x20 inch three-bladed wheel. Price $375. The new Rice catalogue contains the full lines of the boat with description, specifications, etc.



Atlantic Co. 23½-foot sea-going Gurnet dory with 5 to 8-H.P. Atlantic motor.

### Atlantic Dories and Engines.

One of the most interesting exhibits at the show is that of the Atlantic Co., of Amesbury, Mass., where a varied line of dories, dory launches, semi-speed clippers and cabin boats will be on view. A slight refinement of design is noticeable in the new boats of this company, and the flaring bow on some of the 1912 models, which makes for increased dryness, will be appreciated by the expert.

Sizes.—The Gurnet dory is built in lengths of 18½, 20½, 23½, 25½ and 30½ feet, and in addition to this complete line of family boats there will also be shown a 16-foot Gurnet dory skiff and a 17-foot Gurnet dory launch, both new designs for 1912—real boats of real ability in seaworthiness and passenger capacity to give the boat buyer of modest means an opportunity of satisfying his desire for a thoroughly first class outfit at a price from $180 up.

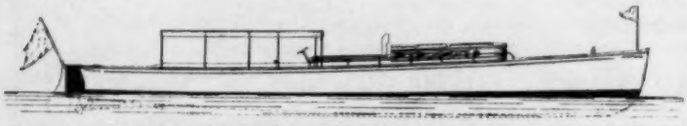
The 25½-foot and 30½-foot semi-speed clippers which have been so popular with the boat-buying public, will also be shown, and the 30½-footer with a flared bow will be sure to attract favorable attention.

A new motor recently placed on the market by the Atlantic Co. of Amesbury, Mass., is the Atlantic Chester, 4-cycle motor. It is the result of the study of a number of years to produce as an integral unit a motor, reverse gear and rear starter mounted on one base, which should be light enough for a speed boat or fast runabout and at the same time substantial enough in its construction, design and material, to withstand continuous operation at high speed. It is a 4-cylinder, 4-cycle, T head, en-bloc type, 4½ inch bore by 4¾ inch stroke, and 15 to 30-H.P.

The price of the motor includes the Bosch magneto, reverse gear and rear starter with everything complete to propeller shaft coupling. The price of propeller shaft, stuffing box and suitable propeller will be quoted on receipt of information of the type of boat in which it is intended to use the motor. Further information may be had by addressing The Atlantic Co., Amesbury, Mass.

### Speedway Boats and Engines.

One of the largest and most interesting exhibits at the show is that of the Gas Engine & Power and Chas. L. Seabury Co., Consolidated, Morris Heights, N. Y., in the center of the main floor. The exhibit will consist of a 53-foot twin-screw day cruiser launch, of mahogany planking and finish throughout, equipped with two 6-cylinder 6″x6″ aluminum base Speedway engines with a speed of 23 to 24 miles an hour guaranteed.



53-Foot Speedway twin-screw day cruiser. Speed 24 miles.

30-Foot Speedway runabout with 18-22-H.P. Speedway engine, speed 15 miles.

This boat is guaranteed to make the run from New York to Poughkeepsie and return with six persons aboard at an average speed of 20 miles per hour. There will also be a 30-foot launch and runabout of the regulation stock type with cedar planking and mahogany finish, equipped with a 4-cylinder 4½x5″ Speedway engine which gives her the high speed of 15 miles an hour. This is one of the popular types of the Seabury Company. In addition to these boats there will be a 30-foot yacht tender with mahogany planking and finish and a 4-cyl. Speedway engine with aluminum base, and a 21-foot stock model tender with a speed of 16 or 17 miles per hour guaranteed.

In the engine line there will be one Speedway 6-cylinder, 8″x8″ aluminum base engine, such as in the Tarter, Speejacks and Eph. This motor will develop 200 H.P., and is an exceptionally fine type, well tried out, and one that will undoubtedly attract considerable favorable comment. One 6-cyl. 11″x12″ Speedway engine will be shown. This is the same size and style that was installed in Commodore Plant's 138-ft. motor yacht this year, and which has given perfect satisfaction. This engine will develop 250 to 300 H.P., and is of the air starting and reversing type.

One of their small engines, 4-cyl. 4-cycle, 4″x4½″, with aluminum base, will also be shown. This is the style of engine used principally for yacht tender service. One of the Speedway gasoline combination generating sets will be shown. This is designed especially for use aboard large gas power yachts that have a generator for lighting purposes and air compressor for air starting and reversing engines, and a plunger pump for fire, bilge and general service. The engine consists of three vertical cylinders, 4½″ bore by 5″ stroke, mounted on a cast iron closed frame, which in turn is bolted to a bed with an extension cast on for a 3 K. W. generator, giving capacity of 54. 16 C.P. lamps. The two end cylinders are fire cylinders, while the center one is an air compressor, with mechanically operated intake valves.

Cleveland Auto Boat Mfg. Co., 25-foot runabout.

### The Cleveland Auto Boat Company's Runabout.

The Cleveland Auto Boat and Manufacturing Company of 1035 River Avenue, Cleveland, Ohio, will exhibit in Madison Square Garden, one of their small runabouts which have proved very popular in the past season. This company manufactures boats from 14 to 100 feet in length, the smaller sizes being carried in stock models at a price as low as is consistent with high grade work. The firm specializes on a high class stock family boat and runabout. Prices run from $200 to $1,500 for stock models.

### A Lawley Runabout.

One of the new exhibits to be seen at the Show this year is that of Geo. Lawley & Son, Corporation, of Neponset, Mass., who are exhibiting one of their high-class mahogany trimmed runabouts 30 feet long and 5 feet 6 inches wide. This boat is equipped with a 25-30-H.P. Sterling engine. This craft represents one of the high class runabouts built by this firm suitable for river, harbor or lake use. She is painted black and with her polished mahogany deck, beautiful finish and fine construction she will undoubtedly attract much attention.

(*Other boats on page 256*)

# A Detroit Oiler remembers for you

Ordinary lubricators have to be turned on when the engine starts and turned off when it stops. *If you forget,* it means wasted oil or a damaged engine.

You don't have to remember to turn a Detroit Force Feed Oil Pump on or off.

It starts and stops with the engine.

When the engine goes faster, the Detroit delivers more oil—when you go at half speed, the pump feeds only half as much oil.

Always the right amount of oil *and no more*—without any attention from you at all.

The Detroit Force Feed Oil Pump *insures* you against wasted oil and a damaged engine.

It gives you positive, mechanical, *sure* lubrication that lengthens the life of your motor and leaves you free to enjoy your boat.

There is no bother connected with Detroit lubrication.

## A Detroit Oiler never has to be regulated

***It's automatic. Once it is adjusted to your engine, you never have to regulate it. The quantity of oil fed is automatically regulated by the engine speed.***

Detroit Force Feed Oil Pumps are furnished as standard equipment by manufacturers of high grade gasoline engines because their customers don't want to be bothered by ordinary lubricators.

The Detroit Oil Pump is the simplest, most efficient and economical means of lubrication on the market.

Specify a Detroit on your next engine.

**Write to-day for Catalog P-69.**

**DETROIT LUBRICATOR COMPANY.**

DETROIT, U. S. A.

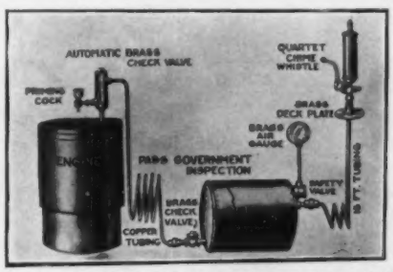
*Largest Manufacturers of lubricating devices in the world*

# *The* "YANKEE" SILENT MUFFLER And Whistle Outfits

**For AUTOMOBILES, LAUNCHES AND MOTOR BOATS**

The only Muffler made without back pressure or noise at all speeds of the engine. Adapted for 2 and 4 cycle engines. Marine Mufflers are water-tight. No complicated parts. The gases do not reverse, which prevents back pressure. Made of galvanized steel, and light in weight. Over 300,000 in use on automobile and marine engines. Made in various sizes, for 1 to 75 horse power engines.

## "YANKEE" WHISTLE OUTFIT



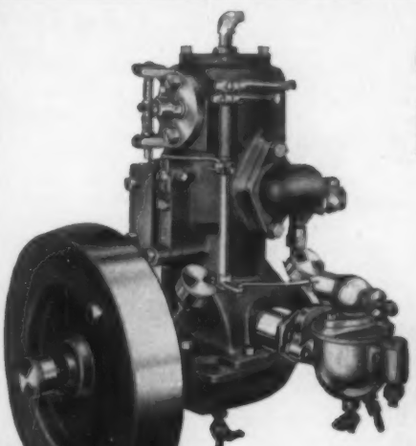

The Automatic Check Valve is quickly attached to any make or style gasoline engine in place of priming cock either on top or side of cylinder. Furnished complete, as shown. Passes Government inspection, filling every requirement of the law. With this outfit the operator always has a good pressure of air to blow the whistle, which is a 4-toned quartette Chime whistle, producing a deep musical sound, which can be heard for miles on the water. No complicated parts to get out of order. All parts in sight after the outfit is installed are brass highly polished.

For sale in New York, by Durkee & Co., Chas. E. Miller, E. J. Willis Co., John C. Hopkins, Chicago, Geo. B. Carpenter, 200 S. Water St., Canada, Canadian Fairbanks Co., Montreal, Toronto, and Vancouver. Write for descriptive catalogue on full line.

Manufactured only by

**THE "YANKEE" COMPANY**
*Incorporated*

UTICA, NEW YORK, U. S. A.



# OUR LEADER

## 1½ H. P. EAGLE ENGINE

## $60.00

**Complete**

**Equipment includes: Schebler Carbureter, Oil Cup and Grease Cups, Bronze Propeller Shaft and Propeller, Stuffing Box, Inboard Water Connection, Insulated Cable, Switch, Coil and Batteries, Expensive Tool Kit,**

ALL FOR SALT WATER USE.

Do not forget that "EAGLE" Engines are made in 14 other sizes. Send for illustrated catalogue.

**THE EAGLE CO.**

**98 WARREN STREET** **NEWARK, N. J.**

# Motor Boat Accessories and Fittings

Columbian speed propeller and universal propeller strut.

### Columbian Propellers and Accessories.

One of the largest exhibits of motor boat propellers at the New York Show will be that of the Columbian Brass Foundry of 208 N. Main Street, Freeport, Long Island. The exhibit will contain a large assortment of Columbian speed propellers in all sizes and styles from 10" in diameter up to 48", and propellers may be seen there suitable for any type of boat from a racing canoe up to a large tug boat.

This Company has one of the largest line of patterns for motor boat propellers in the country, if not in the world, and to this line they are adding this year a new propeller, known as the Columbian Rocket Propeller, which is sure to become a very popular wheel during the coming season.

In addition to this large line of propellers there will also be exhibited a complete display of Columbian motor boat accessories which will comprise accessories manufactured exclusively by this Company and which can be bought nowhere else. This line comprises manganese bronze rudders, rudder ports, rudder shoes, universal struts or propeller shaft hangers with anti-friction bearings, shaft logs, all kinds of stuffing boxes, couplings, etc. The Columbian Universal Struts have been improved this year by the addition of anti-friction bushings in the bearings which may be easily replaced when worn. This not only improves the bearing itself, but the struts can be used for years by simply renewing these bushings.

This Company has just moved into its commodious new plant and this will insure prompt deliveries on all Columbian products.

To anyone interested in motor boats the Columbian catalog "Propellers in a Nut Shell" will be of great value as it embodies many excellent points on the selection of suitable propellers for motor boats.

### Splitdorf Magnetos.

The exhibit of C. F. Splitdorf, of coil and magneto renown, at the Motor Boat Show is extremely educational.

A sectional view of the Model F, low tension magneto at once discloses and clears up many of the so-called mysteries of magneto construction. The armature, distributor and circuit breaker are in full view and the boat owner can see for himself exactly what duties a magneto performs.

A working model of the largest magneto in the world, weighing 800 lbs. and standing nearly 4 feet high is another Splitdorf educational feature for layman and wiseacre alike.

All the low tension models which have made the name of Splitdorf famous are exhibited, but there are new features on exhibition of great interest to the trade in general. The new Gem coil makes a brave showing and the redoubtable Splitdorf plugs are in great array. Splitdorf innovations on low tension models are chiefly in interior design, more particularly incorporating as they do the latest insulation improvements.

### Ball Reverse Gears.

A number of Ball Reverse Gears made by the New York Gear Works, of 55 Greenpoint Avenue, New York City, will be seen attached to engines at the Show where they can be watched in actual operation. This is an all spur planetary gear invented by this Company, the New York Gear Works being the first to build and operate a reverse gear of this type. Gear housing and engine coupling are made integral so that the gear becomes part of the engine and is self-contained, requiring no support at the after end. The prices range from $16 to $140 for the following sizes:

LOW SPEED MOTORS.

| | | | |
|---|---|---|---|
| No. 1 Gear | will transmit | 5 | H. P. at 500 R. P. M. |
| No. 2 Gear | " " | 8 | H. P. at 500 R. P. M. |
| No. 3 Gear | " " | 12 | H. P. at 500 R. P. M. |
| No. 4 Gear | " " | 16 | H. P. at 500 R. P. M. |

HIGH SPEED MOTORS.

| | | | |
|---|---|---|---|
| No. 1 Gear | will transmit | 20 | H. P. at 1000 R. P. M. |
| No. 2 Gear | " " | 30 | H. P. at 1000 R. P. M. |
| No. 3 Gear | " " | 40 | H. P. at 1000 R. P. M. |
| No. 4 Gear | " " | 50 | H. P. at 1000 R. P. M. |

Atwater-Kent monoplex marine horn.

### Atwater Kent Electrical Equipment.

At the New York Show the Atwater Kent Mfg. Co., 42-46 North Sixth St., Philadelphia, Penna., will have a display of their ignition systems and various models of their Monoplex electric horns.

The Unisparker, one of the Atwater Kent products, has been on the market about four years and the manufacturers assert that this ignition system is replacing the old fashioned trembler coil outfit and some of the less efficient magnetos. The Atwater Kent Co. claim as the salient features of their Unisparker, low cost of installation, small consumption of current, simplicity in operation, ability to withstand wear producing forces, and thorough reliability.

This Company also manufactures for the use of motor boats and sail boats a marine horn which complies with U. S. Government requirements. These horns may be operated either by improved push-button from steering wheel or by a foot lever. The marine horns range in price from $15 up, including eight feet of braided two-conductor wire. All marine horns are set in swivel base and may be moved in any desired direction to concentrate the sound and are removable when boat is not in operation. Full particulars will be supplied at the booth or by addressing the Atwater Kent Co. direct.

Atwater-Kent unisparker.

The Yankee Co.'s expansion silencer or muffler.

### Yankee Mufflers and Whistles.

One of the noise-stifling devices which will interest the motor boat man at the Show is the Yankee mufler, which the Yankee Muffler Co., of Utica, N. Y., are exhibiting. These mufflers are made of galvanized sheet steel, are lined with asbestos and relined with the sheet steel. They are watertight so that circulating water may be run through them and are so designed, the manufacturers state, that there is no back pressure.

The "Yankee" whistle outfits pass Government inspection and comply with the U. S. Laws relating to motor boat equipment. They are easily and quickly attached to any gasolene engine. The mufflers range in price from $3.00 to $6.50.

### Janney-Steinmetz Air Starters and Seamless Tanks.

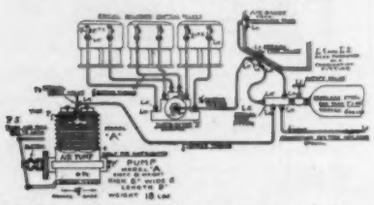
The Janney, Steinmetz Co., of New York and Philadelphia will exhibit at the National Motor Boat Show a new device which they are now putting on the market in the line of a marine engine starter and whistle pump. A complete installment of these devices will be shown, so that the method of attachment and actual service conditions can be seen.

The outfit consists of a pump distributor; a seamless steel air tanks; an air or throttle valve; cylinder valves, one for each cylinder; and an air pressure gauge. The pump-distributor unit consists of a two-cylinder pump, with a multiple port distributor mounted thereon. The distributor rotates continuously with the motor and at cam-shaft speed, while the pump is thrown into and out of action as required.

The action of the distributor is such that incoming mixture can't possibly be affected.

The tank is tested to 500 lbs. cold water pressure. In operation the pressure carried is between 80 and 150 lbs. In starting the average size motor the gauge drops from 3 to 5 lbs.

This company also make a line of seamless steel, tinned and tested gasolene tanks for use on motor boats and automobiles, and air pressure tanks of all sizes for whistle outfits. These tanks



Sectional view of Janney-Steinmetz compressed air motor starter.

TRADE **IMPERVO** MARK

**—the Waterproof Clothing that is really waterproof**

When IMPERVO was first placed on the market several years ago, it possessed practically the same remarkable qualities as it does *to-day*, but being new and untried, it naturally needed proof. To-day it has all, *quality, proof,* and *friends,* thousands of them. Here's a striking example:

**THOMAS FLEMING DAY**

making his world-famous trip across the Atlantic in his 25-foot yawl Sea Bird recently, had an IMPERVO coat with him. His experience and what he says about its wonderful service should convince the most doubting of people about IMPERVO superiority:

**"We had ONE good coat, an IMPERVO, made by Armstrong, and all hands wore that. It never leaked a drop and came through the passage in fine condition' The oilers gave out at the knee and elbow, the constant rubbing making them leak.'**

***Thousands*** of others—IMPERVO wearers—agree with Capt. Day, and hundreds are not satisfied until they have written me their praises of it.

Every yacht owner should equip himself, his officers, crew and guests with IMPERVO—it is far more durable, reliable and economical than anything on the market, yet it hasn't a particle of rubber in it. IMPERVO defies the elements, it's the only waterproof clothing in which you can feel absolutely safe from getting wet in all-day rains, storms, sleet, etc. It's just the thing, too, for autoing, hunting, canoeing, fishing, etc.

**WRITE FOR FREE SAMPLE AND PRICE LIST**

**E. A. ARMSTRONG**

**215 W. Kinzie St., Chicago, Ill.**

**Be Up-To-Date!**

YOU would'nt installan ancient power plant in your boat; then why spoil its appearance with an antiquated painted name or the makeshift single initials, when you can get what

GOOD BOATS HAVE,

**HICKOK Name Plates**

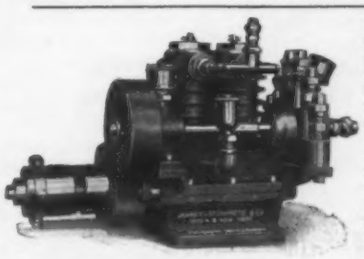
**Beautiful and Distinctive in Design**
**EASILY ATTACHED**
(made in one piece)
**Made To Fit Your Boat**
**NOT EXPENSIVE**

SEND FOR BOOKLET AT ONCE
GIVE SIZE OF BOAT

**The Hickok Mfg. Co.**
**1 St. Paul St., Rochester, New York**

**The Janney-Steinmetz Motor Starter**

Designed especially for the Six-cylinder Type—WILL "TURN OVER" ANY MOTOR



The outfit consists of a pump distributor; a seamless steel air tank; an air or throttle valve; cylinder valves, one for each cylinder; and an air pressure gauge. The pump-distributor unit consists of a two-cylinder pump, with a multiple port distributor mounted thereon. The distributor rotates continuously with the motor and at cam-shaft speed, while the pump is thrown into and out of action as required.

The action of the distributor is such that incoming mixture can't possibly be affected.

The rotor is so designed that the air is use f expansively in each cylinder.

Each cylinder of the pump is a distinct pump itself, and an accident to either does not put the other out of commission.

The tank is tested to 500 lbs. cold water pressure. In operation the pressure carried is between 80 and 150 lbs. In starting the average size motor the gauge drops from 3 to 5 lbs.

Whistle can also be sounded with air from tank.

Our seamless steel tank represents absolutely the *best* in tank construction. Don't have a leaky tank when it's so easy to get a thoroughly reliable dependable one. Think this over NOW.

Main Office PHILADELPHIA — **Janney-Steinmetz & Co.** — Branch Office NEW YORK

Consult YACHTING'S Information Department on any of your problems. Its service is absolutely free.

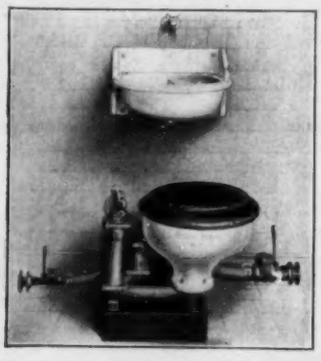
are in use throughout the world where motor boats are used. They are made of seamless steel, thoroughly tinned inside and out, and are excellent for marine fuel use, as they have no seams to leak and are strong and durable.

### Hyde Propellers.

The Hyde Windlass Co., of Bath, Maine, makers of scientifically designed turbine propellers exhibit some of their wheels which will interest the boat owner who wants to get the greatest efficiency from his boat and engine. The Hyde Windlass Co. have prepared a little booklet on propellers, and particularly in regard to their turbine propeller, which not only contains valuable information, but sizes and price lists of these wheels and of their Tobin Bronze shafting, etc.

The Hyde Turbine Type propeller is made in both two and three bladed wheels, both right and left handed, in sizes from 8 to 36 inches diameter, of pitch to meet the conditions imposed by any type or design of hull, or speed of motor.

These propellers are made of Hyde manganese bronze, a non-corrosive metal of the highest tensile strength, such as has been used for 15 years in the propellers for the ships of the U. S. Navy and Merchant marine. They are made from metal patterns, correctly balanced, and are finished in the best manner. Having large blade areas they run with very little vibration. Price range $1.75 for 2 bladed 8-inch wheel to $50.



Diem complete toilet room outfit for small boats.

### A Toilet Room Outfit For Small Boats.

Realizing the value to the owners of small boats of a compact yet well made and durable toilet room outfit, Gus A. Diem of 20 Fulton St., New York, has placed on the market for the owners of such boats a toilet-room outfit consisting of a Fulton Raceabout closet, and a porcelain wash basin for fastening to the bulkhead with faucet and nickel-plated attachment complete. This is a particularly good outfit for the purpose and is sold at the very attractive prices of $40 and $45. By the use of the Gus A. Diem patent outboard connection this outfit is very easy to install and can be done by the owner himself without recourse to a plumber. This outboard connection and lever valve takes the places of sea cocks and not only reduces the labor of installation but makes all joints flexible and takes care of any vibration that may exist, allowing free and easy action of pumps and unobstructed passage at discharge. There is no spindle to reduce the area of the discharge outlet.

With these articles there is no reason why the smallest cabin cruiser should not have a convenient toilet room outfit. Full particulars may be had from Gus A. Diem at the show, or by writing him at 20 Fulton St., New York.

### Pyrene Fire Extinguishers.

Every motor boat owner is interested in fire fighting apparatus, and the exhibit of the Pyrene Mfg. Co., of 1358 Broadway, New York, will attract unusual attention. The Pyrene extinguisher is in the form of a brass squirt gun with nozzle at one end and handle at the other so that it can be aimed and discharged upon a fire at a considerable distance. It comes in three designs, nickel plated, brass and enamel, the prices being $8, $7 and $6 respectively.

Pyrene Liquid is a combination of powerful gases in liquid form, absolutely devoid of moisture, thus rendering it a non-conductor of electricity. When the liquid is brought into contact with a temperature of 200 degrees or over it is instantly converted into a dense white gas blanket, about five times as heavy as air, which, surrounding the fire, destroys the oxygen present and excludes fresh oxygen, thus extinguishing the fire. Pyrene Liquid is extremely volatile and leaves no residue.

A Wicker-Kraft cockpit or deck chair.

### Wicker-Kraft Furniture.

The Wicker-Kraft Co., of Newburgh, N. Y., are the manufacturers of Wicker-Kraft furniture for yacht use, and those desiring to equip their yachts in an up-to-date and comfortable manner would do well to get and look over the booklet published by this Company covering their line of waterproof yacht, launch and canoe furniture.

It is now possible to procure from this firm wicker furniture designed especially for the cockpit of small craft which not only takes up but little room but adds materially to the comfort and appearance of the boat. The material that goes into the Wicker-Kraft chairs is from the best American and German reeds, which are vastly superior to the cheaper China reeds frequently used. Their chairs are finished with two coats of Spar varnish which guarantees retention of their appearance and finish.

### The Valspar Exhibit.

Valentine & Company, as might be expected, are devoting much of their space at the shows to their revolutionary discovery of a varnish that is immune from damage by water. This varnish, namely Valspar, has now been on the market for several years and the manufacturers point out that most of the leading yachts and motor boats, including all the boats in the International Harmsworth Trophy Race last Summer are protected with Valspar.

Many varnishes turn white after a more or less prolonged immersion in water. The contrast between Valspar and other varnishes is shown graphically at the Valentine exhibit by a submarine boat floating under water in a large glass tank supported by davits in the Valentine booth and illuminated by a searchlight. The submarine has been varnished in alternate bands with Valspar and various other varnishes and during the show the boat, which is a uniform shining black at the beginning will gradually develop light stripes as the inferior varnishes reveal themselves by turning white, until at the end of the show the submarine will be striped like the suit of a Sing Sing prisoner.

On a large board in the booth will be shown the effect of water on 36 other varnishes. Every panel on this board except Valspar shows signs of the white feather. The Valspar invention has been successfully applied to aluminum paint and this material, so important in marine practice, will also be exhibited.

### Krice Carburetors.

The Krice Carburetor Co., 6 Charlotte Ave., Detroit, Mich., are exhibiting with the Gray Motor Co., a line of the Krice Annular Spray Carburetors which will be very interesting to engine owners. There will also be a sectional model of one of these carburetors showing the interior arrangement, the annular or round spraying crevice, which is the underlying principle of this carburetor.

Sizes. The Krice Carburetor comes in the following sizes: No. O, ¾-inch; No. 1, 1-inch; No. 2, 1¼-inch; No. 3, 1½-inch; No. 4, 2-inch. The price range is from $9 to $38.

Some of the advantages the Krice Carburetor Co. claim for their product are, more power, easy to start, quick control, can be throttled closer and uses less gasolene.

Detroit Lubricator, 4-feed, force feed oiler with ratchet drive.

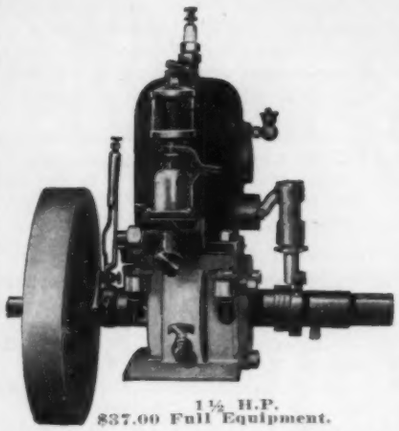
### Detroit Lubricators.

The oiling system of any marine engine being one of the vital parts of the equipment, the Detroit Force Feed Oilers, which will be seen on many engines at the show, will be particularly interesting to boat users. These are mechanical force feed oilers, and are made for every kind of gas engine. They consist essentially of one pumping unit for each feed, actuated by a driving shaft. The entire mechanism is contained in the tank or reservoir which is attached to the engine and is actuated by either a standard pulley or ratchet drive.

Each pumping unit consists of double plunger valveless pump, one plunger pumping the oil from the reservoir through sight feed nozzle, from which it drops in plain sight of the operator, and the other plunger takes the oil from this sight feed chamber and forces it to the part to be lubricated.

Sizes: It is made in sizes from 1 to 22 feeds with a tank capacity of from 3 to 14½ pints. Prices range from $10 to $82. The Detroit Lubri-

# CRAGG HIGH SPEED MOTORS



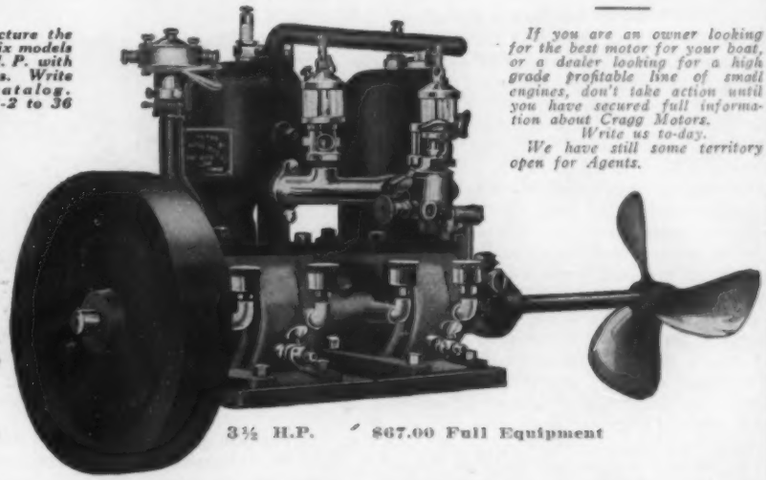
1½ H.P.
$37.00 Full Equipment.

CRAGG Two-Cycle Three-Port Motors are built a little better and backed with a little stronger guarantee than some manufacturers might think necessary—but that is the secret of Cragg success. We know that our success as manufacturers depends upon the success of our motors.

Cragg motors have all the high-grade features and latest improvements of the higher priced motors. They are built with either iron aluminum bases and have brass trimmings, interchangeable bronze bearings and the complete equipment supplied with every motor is of the highest class in every detail. - - - - - - - - - -

*We also manufacture the heavier motors in six models from 4 1-2 to 36 H. P. with 1, 2 and 3 cylinders. Write us to-day for our catalog. Motors from 1 1-2 to 36 H. P.*

One exclusive feature of Cragg Motors is that they reverse, run on high, low or medium speed, stop and start—all by means of only one control lever. They have only three moving parts and are the simplest in construction and operation of any motors on the market. - - -



3½ H.P. $67.00 Full Equipment

*If you are an owner looking for the best motor for your boat, or a dealer looking for a high grade profitable line of small engines, don't take action until you have secured full information about Cragg Motors.*
*Write us to-day.*
*We have still some territory open for Agents.*

## Gilmore-Cragg Motor Mfg.Co.

601 Wayne County Bank Building
DETROIT, - - MICHIGAN, U.S.A.

*"Write us for our Saving Payment Plan."*

# The DOMAN MARINE MOTOR

## A BRAND NEW CATALOG FOR YOU

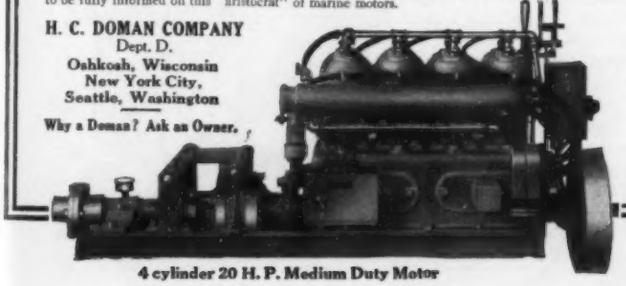
No waste talk in it—gets right down to business—begins to tell you what you want to know in the sixth paragraph, first page. It describes in tabular, easily-read form all the details of our line—6, 9, 12; 10, 15, 20 H. P. Medium Duty Motors; 25-35, 45 to 50, 55 to 75 H. P. High Speed Motors; 16, 24, 32, 40, 60 H. P. Heavy Duty Motors. It gives you brief proofs from 1 year—3 year—4 year—7 year owners and others. Equipment complete as furnished with motors is shown on page 7.

**Send today for catalog** Then you'll have up-to-now information on the "newest wrinkles" in Marine Motors.

Don't buy till you get it. Whether you're a builder, an outfitter or owner you owe to yourself to be fully informed on this "aristocrat" of marine motors.

**H. C. DOMAN COMPANY**
Dept. D.
Oshkosh, Wisconsin
New York City,
Seattle, Washington

Why a Doman? Ask an Owner.



4 cylinder 20 H. P. Medium Duty Motor

# KYANIZE SPAR FINISH

**The most durable outside varnish in the world**

**Resists salt air—will not turn white.**

**Thousands of gallons used by United States Navy.**

*Half-pint sample FREE if you mention this magazine*

## Boston Varnish Company

**Everett Station, Boston**


Consult YACHTING'S Information Department on any of your problems. Its service is absolutelv free.

cator Co. also manufacture hand oil push pumps and 3-way valves for water cooler systems. Full description and catalog may be had by writing to the Detroit Lubricator Co., Detroit, Mich.

Hickok Mfg. Co. brass name plate for motor boats.

### Brass or Nickel Name Plates.

The Hickok Mfg. Co., of Rochester, N. Y., are filling a long felt want with their polished brass and nickeled name plates. These are not the clumsy, old fashioned plates with the letters etched in and filled with enamel; nor are they made up of cheap single initials of stock design. Each name plate is sawed out in one piece, from heavy brass, so that it stands out in relief against the background of the boat.

The strongest factor in their popularity seems to be the artistic and distinctive designs. While many boats are built from the same plans, each name plate design is used but once, and is destroyed in the making of the plate. This method has many features to recommend it. The style of lettering may be adapted to the type of boat; the size may be varied to suit the space available; in fact, the plate may be given an individuality which exactly suits the boat, and sets it off to the best advantage. Further information may be had by writing the Hickok Mfg. Co., 1 St. Paul St., Rochester, N. Y.

### The Yacht's Table Service.

The importance of having on board the yacht the proper dishes for serving repasts is, today, hardly greater than that of having the china, glass and silverware bear symbolic decorative designs—such as the owner's monogram, private signal, colors or club insignia.

The execution and application of these decorations is a delicate operation and demands experienced, skilled craftsmen, which condition explains in a large degree the position held in this field by Higgins & Seiter, whose establishment has long been recognized as the largest retail china and glass store in the world.

The progressive methods employed by this firm for such work are worthy of mention. In the first place, they have maintained for many years a special Decorating Studio for yachts' table services under the direct, personal supervision of a member of the firm. Then, instead of stopping with the mere reproduction of a monogram, private signal or club insignia, they have made it a point never to duplicate a design for other than the person for whom it was originally made.

All hesitation about expense is removed by the firm's generous offer to furnish, without charge or obligation to purchaser, a specimen goblet or plate with desired decoration and estimate of cost.

Higgins and Seiter have just published an entirely new booklet, "The Repast Afloat," beautifully illustrated with designs in Decorated Yacht Table Service. Any reader of YACHTING can secure a free copy of this work by writing to Higgins and Seiter, W. 21st and W. 22nd Sts., New York City.

### Kyanize Spar Varnish.

Kyanize is the name of the new spar finish that is being much talked about by boating men, and generally used for motor boats, sailing boats and, in fact, any craft whose deck and brightwork must resist sun, rain, wind, heat and cold. It has established a unique reputation for resisting salt air without turning white. Thousands of gallons are used by the United States Navy. Its makers claim that its wonderful powers of resistance make it likewise a favorite for veranda and garden furniture and other woodwork that is exposed to the weather.

The manufacturers of Kyanize Spar Varnish show their implicit confidence in it by offering to send a half-pint sample free to any person mentioning this magazine. The address is Boston Varnish Co., Everett Station, Boston, Mass.

The Dirigo compass and binnacle light.

### Dirigo Compass and Binnacle.

The mahogany binnacles here illustrated, made by E. M. Sherman, Bellevue P. O., Seattle, Wash., are equipped with the Dirigo oil compass and electric light. They are brass screw fastened and varnished with Valspar. The electric light obviates the nuisance and danger of an oil lamp and gives the right amount of light where most desired. It operates on a single dry cell.

Mr. Sherman has recently moved from Lexington, Mass., to Seattle, Wash., and will care for his Eastern customers through agencies.

### Paints and Varnishes for your Boat.

On another page may be seen in the advertisement of the A. P. & V. Works a remarkable offer by yachtsmen to their fellow sportsmen. Not only does every boat owner know how difficult it is to secure satisfactory paints and varnishes for his boat, but also just how much of each to buy.

Therefore the introductory offer to supply "a case full of everything you need to finish your boat" should "take" with every sailorman without the 50% saving on retail prices as an extra argument.

The A. P. & V. Works say that these finishes were formulated and thoroughly tested by the officers of the company who have been in the sailing and racing game for years. Their business and pleasure have enabled them to keep in touch with every paint and varnish offered the yachtsman and the better ones were used and applied by them to their own boats where they could see and study their good or bad points.

The results of 8 years' study along these lines are centered in the *four special finishes.*

*Kopper Kote,* actually consisting of pure copper, dries to a hard surface of extreme smoothness and does not dry out and powder off after the winter laying up.

A speed boat retained a *fast surface* of Kopper Kote for two seasons without refinishing. A laboratory test of six months' submergence in a *brine solution* failed to soften or affect the surface of Kopper Kote.

*Anti-Friction Paint* used on the Class A and B boats and motor boats is polished like pot lead but the makers say that unlike pot lead it does not soften or blister but retains its hard, smooth surface all season.

During the season a boat coated with Anti-Friction Paint may be hauled out at night and next morning gone over lightly with fine sandpaper, then brushed and polished with dry waste with a result that will delight the "speed bug."

### The Aaron Automatic Bilge Pump.

One of the striking features of the Show and one which attracts widespread attention from boat owners and buyers is the demonstration of the Aaron Automatic Bilge Pump Company, Inc., of Providence, R. I.

The Aaron Bilge Bailer is a simple and effective device. It is made in ¾-inch, 1-inch, 1½-inch and 2-inch sizes, the type of which depends upon the size and power of the engine and the amount of cooling water it is necessary to pump. The device weighs less than 10 pounds and comes in nickel and brass. The complete device, including gauge, on the smallest pump is less than 12 inches long and is attached to the exhaust water piping beside the motor. It forces the exhaust water through a small nozzle, which creates a suction in a hose leading into the bilge, drawing all of the bilge water, oil, gasolene, and fumes out through the water discharge pipe. The pressure and suction is regulated by a thumb screw, and the device cannot wear out as it has no moving parts. It is provided with a safety valve, so that in case anything should clog the water, there can be no damage from back pressure. It is also provided with an extra outlet which may be used effectively in case of fire.

### Shipmate Ranges.

The Stamford Foundry Co., of Stamford, Conn., make a specialty of ranges for ship and yacht use, making no less than eight sizes and eleven different styles of their famous Shipmate range. These sizes run from a little 2-hole yacht range 20¾ inches long by 15 inches wide and 23½ inches high, to the big 5-foot range for use on steamships or large vessels. These are made entirely of cast-iron and are built to burn either coal, wood, charcoal or coke as fuel and are efficient for all kinds of cooking under any conditions. They not only fulfil their purpose for keeping the inner man content, but in cold and damp weather they keep the body comfortable by providing a place to dry wet clothes and keep the inside of the boat from damp and wet.

All those who have had occasion to be out in hard weather, or to go off shore in a small boat will appreciate the good points of a coal range below that will always burn

Shipmate range for yacht use.

# When Your Motor Boat Catches Fire—

**There is only one way to fight the flames effectively; and that is by using *Pyrene* Fire Extinguishers. They are designed for inaccessible gasolene or oil fires.**

**DON'T**

use sand, it is impracticable and dangerous. You cannot reach the base of the flames without lifting up the bilge boards. Sand in the carburetor ties up the engine and you are at the mercy of the sea.

**DON'T**

use dry powder. It is effective only on the smallest and most accessible fires. In a head wind it is useless, being so difficult to direct.

**DON'T**

use the ordinary chemical extinguisher. It would be as reasonable to use the surrounding water in which you are floating. Water being the extinguishing element intensifies the flames of burning gasolene and increases the burning area.

**USE**

Pyrene TRADE MARK FIRE EXTINGUISHERS

PYRENE is a combination of powerful gases in a liquid form, and is enclosed in a double-acting, powerful, easily-operated cylindrical pump. As it touches the fire or even the heated parts of the engine, PYRENE LIQUID is converted into a dense white gas blanket, five times as heavy as air, which settles down on the fire and smothers it instantly.

PYRENE is non-damaging and non-corrosive.

PYRENE is the only effective extinguisher on highly inflammable fires—particularly oil, gasolene, alcohol and calcium carbide (acetylene gas).

PYRENE does not freeze at sixty degrees F. below zero, and is good until used, because it does not deteriorate. Neither does it evaporate, being enclosed in a sealed cylinder.

The PYRENE EXTINGUISHER may be refilled as readily as a kerosene lamp. It is small and handsomely finished and should be placed at some convenient point on your boat where it will be instantly available for use.

Price: $6 in enamel; $7 in solid brass; $8, full nickel plated.

**Included in the lists of Approved Fire Appliances issued by the National Board of Fire Underwriters. Approved by the United States Steamboat Inspection Service.**

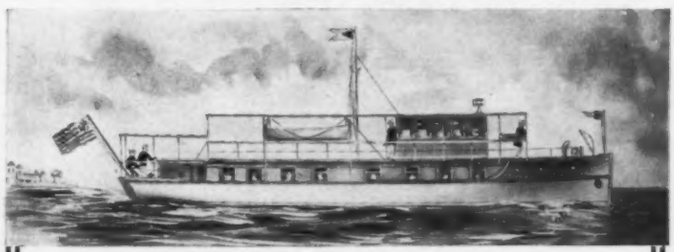
***Write for our Booklet.*** ***Address Dept. R.***

**PYRENE MFG. CO.**

**1353 BROADWAY, NEW YORK**



# Mathis Sturdy-built Boats



**The 70-foot houseboat Lanai,** designed and built by us, has more comfortable living accommodations than any boat of the size afloat. This is one of five Mathis-built houseboats in Florida this winter.

**The Lanai was launched when the Delaware was full of ice over a foot thick, and went down by open sea to Norfolk during the stormy last week of January. No 70-ft. houseboat, with a draught of only 27 inches and a beam of only 16 feet, ever faced a harder test—yet the Lanai reached Norfolk in perfect shape.**

**Can you want any better proof of the sturdiness of Mathis-built boats?**

**Can you doubt now the wisdom of consulting us before you build—of getting the advantage of our long experience and thorough facilities?**

**The Mathis estimate is usually most moderate—quality considered—because our connection with a large, favorably-located shipyard reduces all costs from material to overhead, and eliminates slack seasons.**

**Shall we send further details?**

**MATHIS YACHT BUILDING CO.**

***Specialists in 60 to 120-Ft. Cruisers and Houseboats***

**Front and Erie Sts. Camden, New Jersey**



# *WICKER CHAIRS*

*that are*

## LIFE PRESERVERS

The chair illustrated in this advertisement can be fitted with a *life-belt*. These chairs are creating a sensation with the Yachting public.

*Tables, Tete-a-tetes and Steering Chairs*

*Special work to order*

***Write for catalogue and full information.***

**WICKER-KRAFT COMPANY**

**13 S. Water St. - NEWBURGH, N.Y.**

# MARINE VARNISHES

TRADE MARK.

IT is impossible to decide intelligently what Varnish or Spar Coating to use, unless you know exactly what work it has to do.

It is well known that the most durable varnish for weather exposure will sometimes turn "whitish" if submerged for several hours, but that on drying it regains its original lustre and will *outlive* other varnishes.

The varnish that dries very quickly is *not* the most *durable* for weather exposure.

On your decks, spars, etc., where it is a question of weather exposure, use

## SMITH'S SPAR COATING

It is pale, has good body, and requires fewer coats for a perfect job. ***It is the most durable.***

Where it is a question of exposure to water rather than to weather, use

## SMITH'S QUICK MARINE COATING

*It will not turn white under water,* dries quickly, and for this class of varnish is unusually durable. It is made especially for wood and metal work "awash" most of the time and for "hurried" work. It is absolutely reliable. Ask any of the leading designers, builders and owners of yachts and motor boats what they think of Edward Smith's Varnishes.

***Free on request, "WINNERS," being a record of the names of the winning yachts and owners of the racing season of 1911.***

**Edward Smith & Company**

***Varnish Makers for 85 Years***

**WEST AVE., 6th and 7th STS., LONG ISLAND CITY**

**P. O. Box 1780, New York City**

**Western Branch, 3532-34 S. Morgan St., Chicago**

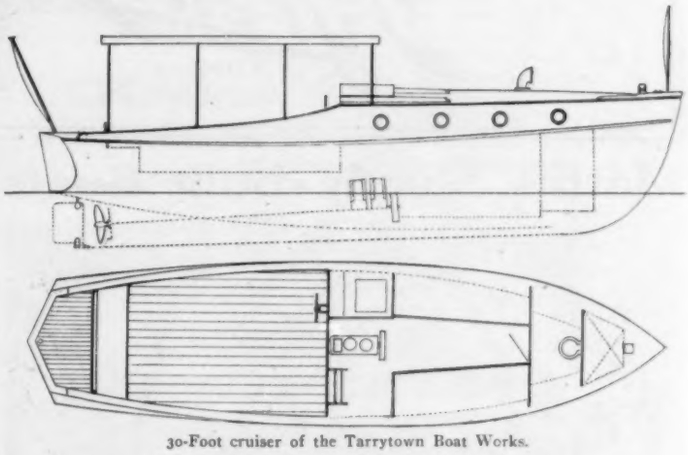

### Milton Boat Works.

Those who desire a handsome and roomy cruiser will doubtless be much impressed by the stock 31-footer built by the Milton Boat Works of Rye, N. Y. This boat has been worked out by Mr. Patterson, the corporation's designer, for the needs of men who wish a real cruiser. She is about the smallest *comfortable* boat in which two persons may make extended trips. The designer's varied experience in actual cruising and knowledge of conditions afloat make this boat a real little ship. There has been no attempt to crowd in too much and the amount of space below decks, every inch of which is utilized, is surprising, yet with all this room, the boat is handsome, able, and seaworthy.

The cockpit (self-bailing) is roomy, carried out to the side and long enough for sleeping quarters in warm weather. The after part of the quarters below is occupied by the galley and engine room. On the starboard side, next to the door, is a locker for oilskins. Next to this is a built in ice box, large enough to hold a liberal supply of ice and provisions. A sink and stove occupy the port side. Forward of this comes the saloon, with transom each side and lockers in the corners. A skylight gives light and air, as do two brass ports on each side. Forward of this comes the toilet room with W. C., shelves and lockers. Tank space and rope locker forward of all.

The engine controls are brought up alongside the wheel, making her a one-man boat. The construction is of the best throughout, only selected material being used, and the workmanship is of the usual high quality required in this yard. While a stock design, this boat is not to be confused with cheap stock boats built for sheltered waters. All Milton boats are built to *last* and to be seaworthy even in their old age.

Besides the above, this yard turns out cruisers up to 80 ft., speed and semi-speed boats, sail yachts and tenders. They have also facilities for storage both under cover and out-of-doors. Many owners store their yachts at Rye through successive seasons, which speaks well for the care received by their pets.



30-Foot cruiser of the Tarrytown Boat Works.

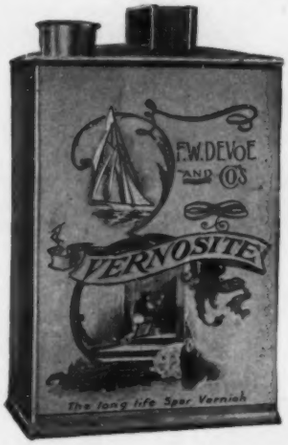
### Tarrytown Cruisers and Runabouts.

The Tarrytown Boat Works of Tarrytown, N. Y., builders of cruisers and runabouts in stock models and built-to-order boats, from 25 to 60 feet in length, have added two new boats to their line this year, a 35 and 40-foot bridge-deck cruisers. The Tarrytown standard of construction calls for white oak frames, cedar planking and copper fastenings. Their cruisers have a speed of from 10 to 12 miles an hour and runabouts from 15 to 20 miles. Any type of motor will be installed at the option of the owner. The Tarrytown Boat Works guarantee first class material and workmanship, and up-to-date design, at as moderate a price as is consistent with good work.

### Devoe Paints and Varnishes.

Some of the specialties which the Devoe & Raynolds Co. put out are the Devoe Vernosite, a long-lived spar varnish which is particularly good for salt water use, as it holds its color and lustre. Zanirex is a varnish of as high a grade as Vernosite, but as it is quick drying it is desirable for emergency use. Devoe Columbia yacht white is a semi-gloss yacht white which will not crack, peel or chalk, while their yacht black is a full gloss black which will not turn gray or blister. For bottom paint Vernosite bronze, incorporated with spar varnish, is guaranteed to prevent barnacles or other sea growth. Whether you paint your own boat or have someone else do it, you want to read this booklet of the F. W. Devoe & C. T. Raynolds Co.

# VERNOSITE




*The Long-Life Spar Varnish*

## Columbia Yacht White

## HEAT-RESISTING ENAMELS

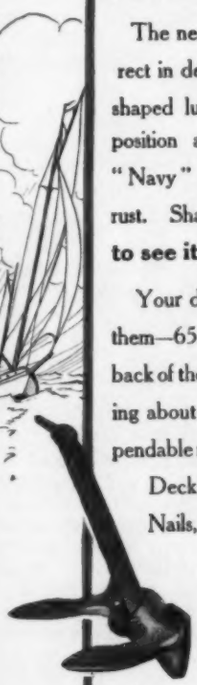
**For Engines, Motors and Radiators**

*Made by* **F. W. Devoe & C. T. Raynolds Co.**

FOUNDED 1754 — 114 DEVOE BUILDING, NEW YORK

## "W. C." Navy Anchor

SIMPLE. SAFE. SURE. TESTED. NOW TRUSTED.

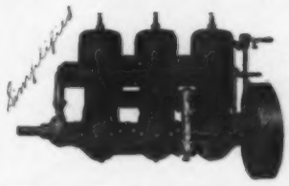


The neatest and best built. Correct in design. Holds on any bottom. V-shaped lug **must** slide to correct holding position at slightest pull on cable. The "Navy" is heavily galvanized to prevent rust. Shank made from solid bar. **Ask to see it.** You need it.

Your dealer carries goods or can get them—65 years' Marine hardware experience back of them. Write us today for booklet telling about the process of making most dependable marine specialties, including Wheels, Deck Plates, Rowlocks, Compasses, Boat Nails, Hooks, Cable Chains, Lights, Lanterns, Pumps, in fact anything in the Marine Hardware Line.

**WILCOX, CRITTENDEN & CO., INC.**
Est. 1847
*Largest Makers of Marine Hardware in the world*
MIDDLETOWN, CONN.

## FOX MOTORS




3 cylinder Medium Duty Fox Motor with Fourth Port

LET US SEND YOU

**Complete information on Marine Motors for 1912**

Twenty-two sizes: Heavy Duty, Medium Duty, Fox Specials and Fox De Luxe Speed Motors.

*Write to-day for 32-page free catalog*

**THE DEAN MFG. CO.**
**212 Front St.**
**Newport, Ky.**

AGENTS—

**New York:** Breese Bros., 38 E. 23d St. **Boston:** American Marine Equipment Co., 27 Haverhill. **Philadelphia:** C. A. Kilmer, Bourse Build'g. **Chicago:** Jas. M. Wait & Co., 1205 Michigan Ave. **New Orleans:** C. B. McCrocklin, 121 N. Carrollton Ave. **Seattle:** Manny Meyers, 520 First Ave., South.

Consult YACHTING'S Information Department on any of your problems. Its service is absolutely free.

# "Extra Efficiency" Northwestern Motors

**THESE ENGINES ARE MADE IN THE MOST MODERN ENGINE PLANT IN THE WORLD**

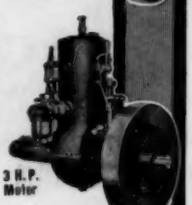
Northwestern motors are in use in every country in the world. They are in the fishing service on the Atlantic and Pacific Coasts in America, in Finland, Sweden, Norway, Holland, Belgium, Spain, Italy, etc., also in most of the South American Republics, in Hawaii, New Zealand, Australia, and the East Indies.

They are installed in Police and Government boats in some of the largest cities. Thousands of pleasure boats everywhere are equipped with the powerful and reliable Northwestern High Duty Engines. The largest boat builders throughout the United States are specifying these motors in their stock boats.

2 H. P. Motor

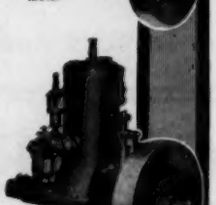
## 2 H. P. Northwestern Motor, $39

The most startling engine offer ever made—a real engine, big and powerful, and not a toy in any sense. Compares in weight, workmanship and efficiency with engines costing nearly double. Do not confuse this engine with many of the cheap makes advertised at so much per pound. It is furnished complete, ready to install in your boat, including electric equipment, two propellers, shafting, stuffing box, wiring, switch, etc.


3 H. P. Motor

## 3, 4, 6, 10, 20 H. P. Motors At Proportionately Low Prices, depending on the equipment desired

Northwestern Engines are strictly high duty, high grade in every respect, and can be furnished with practically any equipment desired such as Reverse Gears, Reversing Propellers, Special Wico Ignitor, Magnetos, or Perfex Water-proof Ignition System.

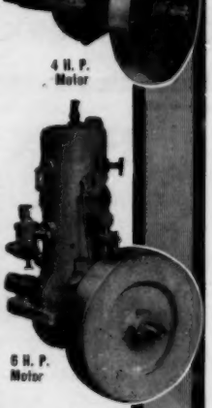

4 H. P. Motor

## THIRTY DAYS' TRIAL

We have a special proposition that we are going to make during the season of 1912, that will enable purchasers to try the engine out thoroughly at our risk, and if not absolutely satisfactory after thirty days of the most severe trial, can be returned and money will be refunded without quibbling.

## Gas-Tight Bearings

Northwestern Engines are manufactured under Government patents No. 943790, and are the only two-cycle engines in the world made with absolutely gas-tight bearings in the crank case, one of the most valuable inventions in gasoline engine construction of modern times.

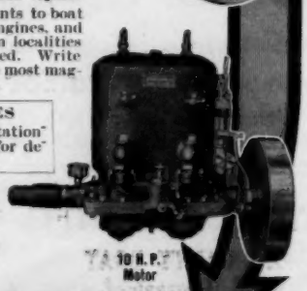

6 H. P. Motor

## Special Prices to Boat Builders and Agents

We are giving splendid inducements to boat builders and agents to handle our engines, and quote special introductory prices in localities where we are not already represented. Write for 1912 Catalog, which is one of the most magnificent publications ever published.

STATIONARY ENGINES

We also make a complete line of Stationary Engines, 2 to 12 H. P. Write for description.


10 H. P. Motor

**Northwestern Steel and Iron Works**

302 Spring St., Eau Claire, Wis.

### A New Yacht Agency.

The Southern Yacht Agency, a concern to do a general brokerage business in yachts and merchant vessels, has been formed in Baltimore, with offices in the American Building. The president of the agency is Mr. Wyatt W. Estep who for eleven years was secretary of the Corinthian Yacht Club and who is now one of the members of the racing board of the Chesapeake Bay Yacht Racing Association. Mr. Estep has associated with him, men experienced in general business and familiar with yachts and well known in yachting circles in the South. The agency is the only one of its kind in Baltimore and has already demonstrated that it is in a fertile field. Owing to the wonderful increase in yachting in the South the demand for good boats is very great and those having boats to sell will do well to list with this concern. They also have a very good list of boats for sale. We wish them success in their new undertaking.

### A Dixie Jr. at the Show.

In the exhibit of the Sterling Engine Co., will be seen one of the new racing hydroplanes, Dixie, Jr., design by Messrs. Tams, Lemoine & Crane, of 52 Pine St., New York. Ten of these little boats are being built, the dimensions being: Length 20 feet and beam 4 feet 6 inches. They are being built by the Staten Island Shipbuilding Co., the same firm that built the Dixie IV, and the workmanship, material and finish is of the very highest order.

The power is a special 45-65-H.P. Sterling 6-cylinder 4-cycle engine. This is a power plant which will stand up under the hardest usage, and one need not be afraid of not finishing in any race in which the boat starts. While a speed of 35 miles an hour is *guaranteed* by Tams, Lemoine & Crane, the designers, the boat still has a seating capacity of three or four persons, the cockpit being amidships and forward of the engine, where the helmsman will not get all the fumes from the exhaust gases and smell of the engine in his face, but can get the full enjoyment of traveling through the water at this speed.

The price of these boats, fully equipped, is $4,500.

### Michigan Wheels.

As a proof of the satisfaction which the owners of Michigan wheels find in their possession we quote the following letter.

Walkerton, Va., January 27, 1912.

Michigan Wheel Company,
Grand Rapids, Mich.

Gentlemen:

On April 27th, 1911, you shipped me a 26-inch 2-blade towing propeller. Before I got this wheel all the boats on the river could both run and tow faster than mine, but since I put on the wheel purchased from you, there is not a boat in the river that can come anywhere near mine in either running or towing. I do most cordially give your wheel the credit for the improvement, and would advise anyone intending to purchase a propeller to buy from the Michigan Wheel Company, Grand Rapids, Mich.

Yours,

T. B. Wilson.

The 1912 catalog of the Michigan Wheel Co., of 569 Canal Street, Grand Rapids, Mich., contains a full description of the various types of propellers, the manufacturers giving sizes, pitch, prices and much other information that will be useful to the motor boat owner.

### Reliance Motor Boats.

The Reliance Motor Boat Co., of 210th St., and Harlem River, New York, have an exhibit of boats at the Show. They are manufacturers of high grade runabouts, yacht tenders, hydroplanes and all classes of motor boats. The Reliance standard of construction is of the highest and the Company has built a number of high grade speed boats the last few years which have made an enviable name for themselves. Among them may be mentioned Peter Pan IV, Tiny Tad and Mosquito.

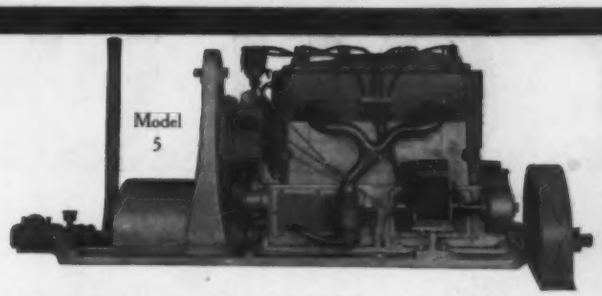
### Marine Glue for Applying Canvas to a Deck.

Jeffery's Marine Glue, made by L. W. Ferdinand & Co., of Boston, Mass., is particularly suited for deck use, both seams and applying canvas. Marine Glue is absolutely waterproof and a deck painted with a heavy coat of hot glue must be waterproof, even before the canvas is applied, and the operation of laying the canvas in the glue by ironing it with a hot flat-iron draws a portion of the glue up into the pores of the canvas, filling it and waterproofing it so that no water can soak into it or the wood beneath.

In the case of white lead, it is neither waterproof nor a filler, it may shed water for a time, but not for very long. As a filler the best you can hope to do is to work it into the face of the canvas, it does not permeate it as with the glue. The worst feature about lead however, is the fact that the oil or the combination of the oil and lead rots the canvas in a

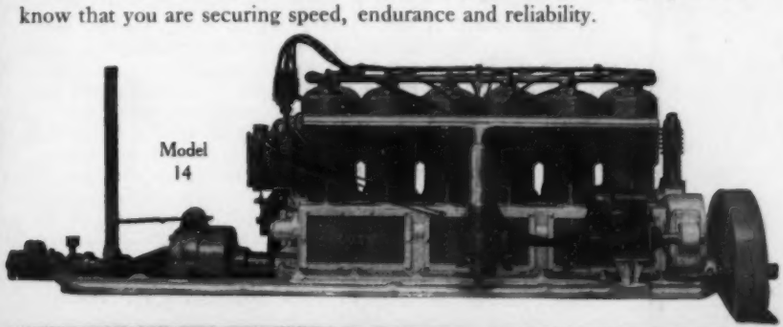
# LOEW-VICTORS

## MODEL 1912




### HIGH SPEED—ENDURANCE—FOR WORK, PLEASURE, RACING

THE 1912 Loew-Victor Marine Engine is now in actual service—more than fulfilling the promises we made for it January 1st. Absolutely all accessories are included with this 1912 Model Loew-Victor Engine. You can pay higher prices—and get less. And when you put the Loew-Victor in your boat—for work, pleasure or racing—you can know that you are securing speed, endurance and reliability.




| | | | |
|---|---|---|---|
| Model 10-1 | Cyl. 4¾x5½, | 6 H. P. | Model 5-4 Cyl. 4½x5, 30 H. P. |
| Model 11-2 | " 4¾x5½, | 12 H. P. | Model 13-4 " 4¾x5½, 25 H. P. |
| Model 12-3 | " 4¾x5½, | 18 H. P. | Model 14-6 " 4¾x5½, 36 H. P. |

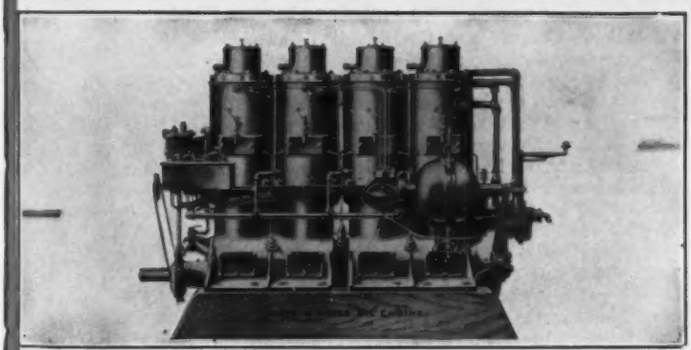
**The Best Stock Motor on the Market, with Features of Superiority not heretofore offered in any Marine Engine**

***Our 1912 Catalog will be sent on request. Write to-day***

## THE LOEW MFG. CO.

**1909 Madison Ave., Cleveland, Ohio**

NEW YORK OFFICE, 30 Church St., Room 726.
C. FRANK MOORE, 220 Devonshire St., Boston, Mass.
CARMAN & BOWES, Bourse Building, Philadelphia, Pa.
THE WALLACE BROS., Norfolk, Va.
F. P. L'ENGLE, West Building, Jacksonville, Fla.
JAMES B. WAIT & CO., 1205 Michigan Ave., Chicago.
HORTON BOAT & ENGINE SUPPLY CO., Rochester, N. Y.
J. O. JOHNSON, Bemus Point, N. Y.
HARRY L'HOMMEDIEU, 182 Franklin St., Buffalo, N. Y.
JOE FELLOWS YACHTING & LAUNCH CO., Wilmington, Cal.
COLUMBIA BOAT & ENGINE CO., Marshfield, Ore.
THE A. R. WILLIAMS MACHINERY CO., Toronto.



# MIETZ & WEISS OIL ENGINES

**150,000 H. P. IN OPERATION**

**MARINE 2-600 H.P. STATIONARY 2-400 H.P.**

Operate on Kerosene, Fuel Oil and Crude Oil

100 h.p. using three cent fuel saves $1800.00 per year over engine using gasolene at nine cents per gallon. Are you interested?

*Send for Catalog*

## AUGUST MIETZ

**134 MOTT STREET · NEW YORK**

**MEET US AT THE NEW YORK MOTOR BOAT SHOW**

# 20 FT. SPECIAL

## $275.00

**A QUALITY BOAT**

***Fully Guaranteed.***

Our 16 years reputation as builders of *quality boats* and *engines* is behind this boat in every way. We are simply making a leader of her, building several hundred, and selling at a *very close margin.* 20 x 4½ with own fully guaranteed 4 H. P. engine. The best oak, white cedar, spruce, mahogany and cypress used in construction. Bronze rudder post, polished brass deck fittings, copper gasolene tank, etc., etc.

***THIS BOAT BUILT AND SOLD ON THE USUAL BASIS WOULD COST YOU AT LEAST $425.00.***

Write for full details if you want an exceptional value.

***We are offering a still bigger bargain in our 20-Foot Fast Runabout, 8-10 H. P., double cylinder jump spark engine, for $375.00. Speed 12 miles an hour.***

BOOK DESCRIBING BOTH SENT FREE ON REQUEST.

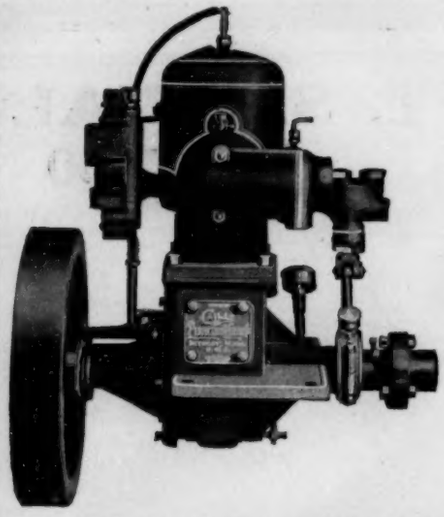
**RICE BROTHERS COMPANY,** (Dept. J.) **East Boothbay,** MAINE, U. S. A.

CAILLE

**No Batteries!**
**No Magneto!**
**No Coils!**
**No Timer!**

AT LAST, here is a high grade marine engine with an ignition system guaranteed waterproof and consequently trouble-proof. The new 1912 Perfection marine motor with Perfection Ignitor is the greatest forward step yet made in the marine engine industry and marks a new and distinct epoch.

For fishing boats, oyster boats, ferry boats, work boats and all craft contending with all kinds and conditions of weather, the Perfection Heavy Duty 8 horsepower engine with Perfection Ignitor will simply thrive on genuine hard work—it starts on ignition—saves repair bills and there are no complicated parts to get out of order. This 8 horsepower engine, complete with Ignitor and ready to run, costs just $140—it works equally well in fresh or salt water, tidewater or stream, calm or storm—there is only one wire on entire system.



8 H.P.

$140

Don't let this opportunity go by—Send for our Perfection Marine Engine Book that fully describes the Perfection Ignitor—Write to-day

**Caille Perfection Motor Co.**

1221 CAILLE STREET DETROIT, MICHIGAN

PERFECTION

short time, whereas with Marine Glue the canvas is waterproofed and preserved; neither water nor oil can permeate and it will last as long as the boat.

Ferdinand & Co., recommend Jeffery's No. 7 Black or Special Marine Canoe Glue or Waterproof Liquid Glue, for applying canvas to decks, tops of cabins, and for covering boats and canoes.

### Combination Speedometer and Clock.

The Stewart & Clark Manfg. Co., of 1921 Diversey Boulevard, Chicago, are placing on the market some of their attractive speed recorders in the Stewart Speedometer. This is absolutely an accurate speedometer that has the guarantee of Stewart & Clark behind it. Every part is made like a watch and it is turned out by automatic machinery so that it is absolutely accurate. It has an open dial, large figures and is easily read. The prices range from $15 to $30. The Stewart & Clark Co. also manufacture a speedometer and clock combination mounted on the same arm and fastened to dashboard. This is a very useful combination as it gives both the time and speed at a glance. This clock combination lists from $45 to $70.

### All Kinds of Canvas Work.

G. W. Robinson & Co., of City Island, N. Y., are the makers of spray hoods and awnings for motor boats, yacht sails, etc., the demand for, and popularity of which is constantly increasing. These goods are used in all parts of this country and in many foreign ports. Robinson sails have attained a recognized high standing in racing circles on Long Island Sound and adjacent waters and are becoming favored in the Pacific and Lake racing centers. The spray hoods built by this firm, though moderate in price, are well made and extensively used.

While specialists in the designing and making of sails and spray hoods, G. W. Robinson & Co. manufacture everything in the canvas line and fit out a great many motor boats and steam yachts with awnings, covers, etc. A factor in the popularity of Robinson goods aside from good material and workmanship, is the fact that the members of the firm are experienced yachtsmen. This means that the design of the Robinson products is such as to insure absolute satisfaction under practical sailing conditions.

Any inquiries addressed to G. W. Robinson & Co., City Island, New York City, on anything in the sailmaking line will receive prompt and careful attention.

### Anchors, Deck Plates and Marine Hardware.

Wilcox, Crittenden & Co., of Middletown, Conn., have recently perfected a locked deck plate which they claim is fool-proof because the lock cannot be picked. This is the Hulburt Locked Deck Plate, which can only be opened with the key that fits it, there being only two that fit any one deck plate and those two the purchaser has in his possession. Such a deck plate is particularly useful over the gasolene supply cap and prevents the owner of a boat who leaves her tied up at her mooring all the week from finding his gasolene tank empty the next time he comes down aboard.

Among other specialties which the Wilcox & Crittenden Co. manufacture are the Crittenden Navy stockless anchor, which has a "V" type lug in the end of the shank which insures quick action and a sure hold with the slightest pull on the cable.

They also make launch wheels, running and riding lights and in fact everything in the marine hardware line. Wilcox, Crittenden & Co. issue a descriptive booklet of their products showing why they are the standard of the world. This will be sent free to the readers of YACHTING by writing to Wilcox, Crittenden & Co., of Middletown, Conn.

### Dayton Searchlight Outfits.

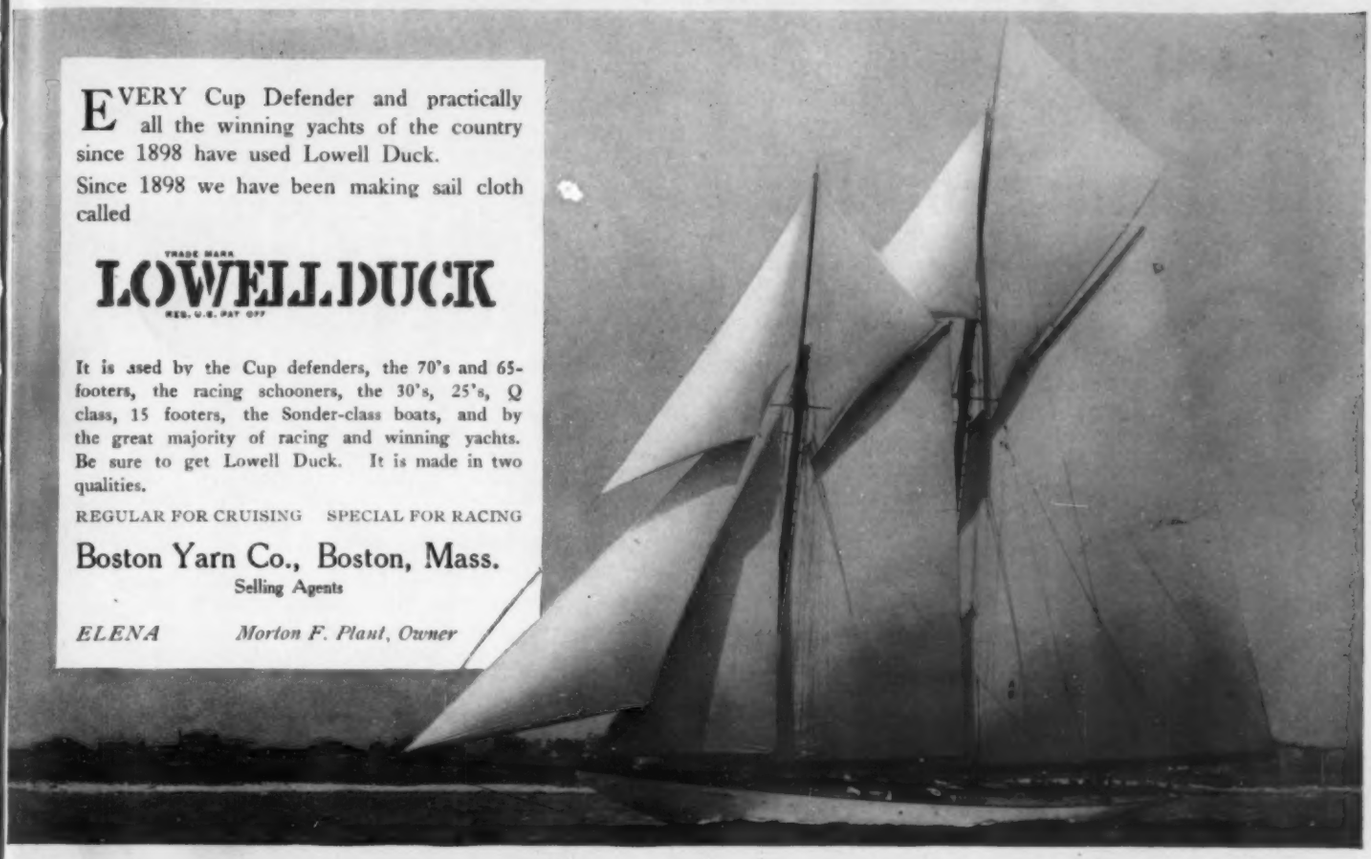
One of the interesting features of the New York Motor Boat Show will be the new Arc Searchlight Outfit for motor boats, recently brought out by the Dayton Electrical Manufacturing Co., of Dayton, Ohio.

Its important feature is a 1,500 c. p. searchlight that is just what is being called for by so many owners of cruising boats, as it will make navigation at night a real pleasure with the boat that carries it as part of the equipment. Besides this brilliant beacon, the outfit also provides current for twenty 12 c.p. 13-volt tungsten lamps, or their equivalent.

### Harthan Wheels.

The Harthan propellers, manufactured by the McFarland Foundry & Machine Co., of Trenton, N. J., have been on the market for many years, and are designed especially for speed boats. Great attention is given to the proper balance, design and pitch of this wheel and a great many fast boats that were equipped with it "cleaned up" all over the country last year.

This propeller is made in both two and three blades, right and left hand. Some of the well known boats which used this wheel last year were Sand Burr II, Gretchen II, Kitty Hawk II and Reliance IV. The company also makes wheels for boats of all types.



EVERY Cup Defender and practically all the winning yachts of the country since 1898 have used Lowell Duck.

Since 1898 we have been making sail cloth called

TRADE MARK
**LOWELL DUCK**
REG. U.S. PAT. OFF

It is used by the Cup defenders, the 70's and 65-footers, the racing schooners, the 30's, 25's, Q class, 15 footers, the Sonder-class boats, and by the great majority of racing and winning yachts. Be sure to get Lowell Duck. It is made in two qualities.

REGULAR FOR CRUISING SPECIAL FOR RACING

**Boston Yarn Co., Boston, Mass.**
Selling Agents

*ELENA* *Morton F. Plant, Owner*

**30 Days Free Trial**

**A New Principle in Carburetors**

IF the **Krice Carburetor** does not give 20% *more power,* use *less gasoline,* give *better control,* send it back and get your money back. *You take no chances.* We *guarantee every Carburetor* sold to give absolute satisfaction.

The only sure way to know that you are getting *all* the power from your engine, is to try a Krice Carburetor.

**KRICE CARBURETOR COMPANY**
6 Charlotte Ave., Detroit, Mich.

**Four Car Owners in Every Five Use the Reliable Stewart Speedometer**

***An Absolute Necessity***

**Tells you how fast you go; saves you from arrest and accidents; keeps track of your season mileage; helps you follow guide-book mileage when touring; saves you money on tire adjustments; checks your gasoline and oil supplies; helps you get maximum efficiency out of your car.**

**Beautifully made; absolutely accurate; open dial, easily read; jewel bearings; positive odometer; unbreakable flexible shaft; drop forged swivel joint that will outwear the car.**

***Speedometer Guaranteed for Five Years.***

Send for new 1912 descriptive catalog; tells you why, in our big factory, we can make the best speedometer at the lowest price.

Stewart Speedometers have 100,000-mile season odometer, 100-mile trip register, can be reset to any tenth of a mile.

**Speedometers, $15 to $30**
**Clock Combinations $45 to $70**

**Stewart & Clark Manufacturing Co.**
1921 Diversey Boulevard, Chicago

Detroit Chicago San Francisco New York Cleveland
Boston Philadelphia Kansas City
Los Angeles Minneapolis Indianapolis London Paris

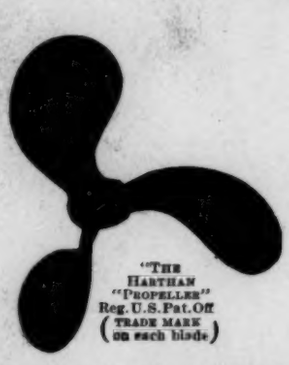
"One Good Turn Deserves Another"

And you get it, too, with a

# Harthan Propeller

There is so much difference in propellers, their dependability and what they will do, if you are at all particular about your boat, and what you get out of her, you ought to take a little time to look into the matter.

DO NOT BUY AN IMITATION




*INSIST* THAT IT'S A HARTHAN

## THE GENUINE HARTHAN PROPELLER

is the Most Imitated Propeller on the Market

It is made with extreme care.

Its pitch, balance and construction on all models are perfect.

It is made in 2 or 3 blade styles, right or left hand.

It is made with an unusual attention to every detail.

**Despite all these truths it is no more expensive than most goods of inferior quality.**

**The Genuine Harthan will put wings on your boat**

Sand Burr, Gretchen II, Kitty Hawk, Reliance IV, etc., etc., all use Genuine Harthan Propellers.

We have special and equally as good models for Hydroplanes, and for cruising and towing purposes, too.

A big stock of all kinds always on hand. No delay in shipping.

Special wheels made to order, if desired.

***Write us or our representatives before you buy. Let us prove what we say, please. You will benefit by it.***

## McFarland Foundry and Machine Co.

TRENTON, NEW JERSEY

BOSTON
The Lincoln-Dillaway Co.
178 Commercial St.

NEW YORK
Topping Brothers
122 Chambers St.

PHILADELPHIA
F. Vanderherchen's Sons
7 North Water St.

NORFOLK, VA.
The Wallace Brothers

PORTLAND, OREGON
The Rober Machinery Co.


The McFarland Foundry & Machine Co. will send one of their descriptive catalogs and price list on request, or same may be had at their exhibit at the New York Show.

### Breese Hydroplanes.

S. S. & R. P. Breese, 38 East 23rd St., New York, are exhibiting at the Show one of their special design hydroplanes. This Company makes a hydroplane in 14, 15 and 18-foot lengths, built after the Breese design with a single step amidships. The engine is located in the forward end under a hinged hood, there being a seat aft of this for the engineer, the steersman's seat being in the after end of the cockpit. This little boat is big enough to carry three persons and yet is small enough to be easily carried on the deck of a moderate sized yacht. A speed of 30 miles an hour is guaranteed for these hydroplanes, the price complete being $2,150. They are usually equipped with a Fox engine, though any type of engine desired that is practicable will be supplied to order. In addition to these boats S. S. & R. P. Breese build a 30-foot x 6-foot displacement runabout.

### Cushion Outfits.

All those yachtsmen who are looking for cushion, mattress and pillow outfits for their new boats, or who find it necessary to renew their old equipment in any way, will find M. W. Fogg, of 202 Front St., New York, manufacturer of pillows, mattresses and upholstery, a good man from whom to get an estimate. M. W. Fogg is one of the oldest houses in the city, having been in business since 1845 during which time he has outfitted many of the best known yachts in the country.

### Tucker & Carter Bronze-Cored Tiller Rope.

To meet the demand for a strong, durable tiller rope for motor boats of all sizes the Tucker & Carter Rope Co., of 76 South St., New York City, have placed on the market a waterproof linen, bronze center tiller rope consisting of braided cord containing a bronze wire core center. This tiller rope is the strongest of its size of anything manufactured and is particularly suitable for power boats where a severe strain is sometimes put upon it.

This rope is made of flax yarn, is hanked and waterproofed and it is then twisted up in the size strands required, which insures a thoroughly waterproof cord. It cannot stretch, is impervious to weather and will give greater service than any other tiller line under similar exacting conditions. This rope was patented by Mr. William A. Carter, President of the Tucker & Carter Rope Co., this patent being later assigned to this Company. Any of the readers of YACHTING can obtain more information in regard to this rope and can get prices by writing to the Tucker & Carter Rope Co., 76 South St., New York City.

### Lowell Special Canvas for Yacht Sails.

The sailing yachtsman is always interested in anything concerning his sails. Most of the racing men have already learned the value of a close weave canvas because of its ability to hold its shape and because it will not bag under wind pressure. Practically all of the American racing sails made in this country are made of Lowell Special duck manufactured by the Lowell Weaving Co., of Lowell, Mass., which has been making sail cloth since 1898. This Company has experimented with every kind of fibre—Peeler, Egyptian and Sea Island cotton, linen, ramie and silk—to demonstrate the relation between warp and filling as to weight, breaking strength, etc.

In Lowell Special Duck (trade-marked), this company believe they have reached as near perfection in sailcloth as it is possible to get. This is made in all widths from a 5 oz. cloth, for single handers to No. 000 duck for mainsails of the largest yachts. The stock used is extra long staple Peeler cotton grown only in the Mississippi Delta, carefully combed to remove all short staple. The weaving is done by highest skilled weavers. The result of their work and a careful system of inspection gives practically perfect work.

### Smith Spar Coating.

Edward Smith & Co., makers of varnishes and preservative coatings for yacht and marine use call attention to the durability of their spar coating, and the fact that 84 years' experience goes into every can of it. Durability is a vital and essential point in all spar varnish, and is a matter of test which cannot be decided by casual inspection. But the fact that Smith's spar coating has the indorsement of the leading naval officers, boat builders, owners and sea captains is a guarantee of its lasting quality.

Another varnish which will be appreciated during the boating season by boat owners is Smith's Quick Marine Coating for use in exceptional cases and for places that are awash most of the time, where it is a question of withstanding water rather than weather. It is for a quick job that can be done when cruising, as it dries "extra quick" and does not turn white under the water.

# HIGGINS & SEITER

THE·LARGEST·CHINA·&·GLASS
RETAILERS·IN·THE·WORLD

## Appropriate Table Services

### For Yachts of Every Type

Your private or club emblem gives far more character to your Yacht's China, Glass and Silver Service than the most elaborate and expensive decorations with no personal significance. :: :: :: :: :: :: ::

Our long-established Yacht Department will prepare any decorations desired or originate individual designs—*at very small cost.* For years hundreds of the finest craft afloat have been equipped with Decorated Tables Services from HIGGINS & SEITER (list sent on request). : :: :: :: :: :: ::

Our prices for work of the highest material and artistic excellence—as for all our China and Glassware—average *"One-quarter Less Than Elsewhere"* :: ::

**We will gladly submit a specimen Plate or Goblet decorated with any design, together with estimate—*free of charge* and *without obligating you in the least to buy.***

ILLUSTRATED YACHTING BOOKLET SENT ON REQUEST

"BUY CHINA and GLASS RIGHT"

**West Twenty-first and Twenty-second Streets** JUST EAST OF SIXTH AVENUE **New York**

Michigan

## FAMOUS MICHIGAN SPEED WHEELS · REVERSE GEARS & MARINE HARDWARE

## LET US SAVE YOU MONEY

Supposing you bought a propeller wheel and you could not get any speed out of it, or a reverse gear that gave you all kinds of trouble These things may not have cost you much and you thought you were saving money, but before you get any pleasure out of boating you would have to get a new equipment.

Now in selecting your wheels, reverse gears and marine hardware, get the best there is The best is always the cheapest in the end. The Michigan line is a well-known Standard line, the most complete and of the best quality The prices are the lowest when you take into consideration quality, and when you buy the Michigan line you won't have to buy again

You cannot buy a faster wheel than the Michigan or a better reverse gear or a better line of marine hardware, such as steering wheels, canopy tops, underwater exhausts, propeller jacks, accumulators, air pumps, chocks, cleats, stern bearings, stuffing boxes, in fact, everything for boat and engine

It will save you money to send for their large catalog and purchase the famous Michigan line of goods, they will guarantee you entire satisfaction

**MICHIGAN WHEEL COMPANY, 563 Canal Street, Grand Rapids, Mich.**

# COLUMBIAN

## SPEED PROPELLERS

THE WHEELS THAT WIN

**DO YOU KNOW THAT OUR**

**NEW**

**FACTORY** has more floor space devoted to motor boat propellers than any other in the country.

**RECORD** for 1911 included two of the four fastest boats in the country, which carried Columbian Architects Propellers. (The other two carried specially designed wheels.)

**CATALOG** 48 pages, shows more different styles and sizes of propellers than any other catalog ever published.

**MANGANESE** Bronze is guaranteed for strength.

**EXCLUSIVE** line of motor boat accessories includes struts, rudders, rudder shoes, shafts, couplings, stuffing-boxes and other fittings.

Patented Universal-Strut Self-Aligning, Die-Cast Anti-Friction Bearings.

NEW YORK CITY LOCAL SALESROOM
133 LIBERTY STREET

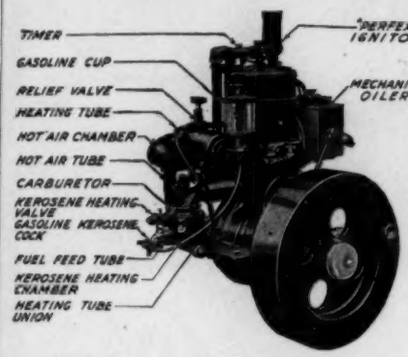
WRITE FOR FREE CATALOG
PROPELLERS IN A NUTSHELL

**COLUMBIAN BRASS FOUNDRY, 208 N. Main St., Freeport, L. I., N. Y.**

Consult YACHTING'S Information Department on any of your problems. Its service is absolutely free.

# The KNOX MOTOR NEVER "KNOCKS"

**IT RUNS LIKE A CLOCK, NEVER MISSES, AND YOU DON'T HAVE TO "WIND IT UP," EITHER**




***T. R. GOODWIN, ENGINEER OF THE SEA BIRD, says: "Frequently made runs of 20 hours without touching the motor at all."***

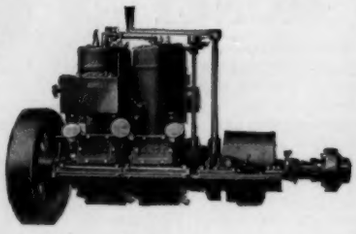
Hundreds of people at the Boston Motor Boat Show saw the little 3 H. P. Knox that the Sea Bird crew depended upon to carry them through the heavy seas and bad weather they had, and the thousands of miles besides, and all marveled at its performance.

All Knox Motors are just as dependable, though.

## They All Burn Either Gasoline, Kerosene or Alcohol

***No motors could be built with greater care or better materials.***

***Knox Motors sell Knox Motors. They are our best advertisement.***



No other motor has ever met the tests they have for

## Durability, Reliability and Power

Our 1911 line didn't develop one weakness. Our 1912 line will, therefore, be the same – no changes.

There's a feeling of security in buying a motor like that.

If you are going to buy one this year, be sure to investigate the Knox. All sizes, 2½ H. P. to 40 H. P.

***Full details and proof on request***

## Camden Anchor-Rockland Machine Co.

**CAMDEN - MAINE**

**AGENCIES**

**292 Franklin St., Boston, Mass.**
**Prince William S., St. John, N. B.**
**436 W. Conway St., Baltimore, Md.**
**36 Colman Dock, Seattle, Wash.**


### Monarch Sliding Spray Hoods.

The Pneumatic Mfg. Co., of 526 Seventeenth St., Brooklyn, N. Y., exhibit through C. D. Durkee & Co., a line of their Monarch Sliding Spray Hoods for motor boats. These hoods are made with brass frame and fixtures and can be raised or lowered in about 10 seconds. They are made of standard government khaki, warranted waterproof.

The same company also makes pneumatic cushions and mattresses, cork filled cushions, government life preservers and all artjcles of cabin and cockpit furnishings. Illustrated catalog will be mailed free to YACHTING readers.

### Screw Steering Gears for Sailing Yachts.

The Edson Manfg. Co., 260 Atlantic Ave., Boston, Mass., are manufacturers of steering gears for sailing yachts which have earned a name for themselves on some of the best known boats in this country. They make all kinds of gears from the quadrant toothed gear operated by a rack and pinion, to the screw gear. The latter type is favorably known among yachtsmen by reason of its simplicity, its power and its delicacy, it being almost as easy to *feel* a boat with one of this type as with the quadrant direct acting steering gear.

### Star Air and Bilge Pumps.

Among the many motor boat fittings manufactured and sold by W. & J. Tiebout of 118 Chambers St., New York, is an air and bilge pump that should appeal particularly to motor boat users. The air pump is sold in connection with a whistle outfit that passes the most strict government inspection and is reliable and absolutely safe.

In the first place it is a small affair requiring but 3½ inches of space for the No. 2 size, and 4½ inches for the No. 4 size, on the propeller shaft. The pump itself is only 8½ inches long from centre of shaft in the small size, and 11 inches long in the No. 4 size. It is operated by a split cam which is slipped on the shaft in any desired position, and has an automatic check so that it will not increase the pressure on the tank after 60 lbs. is reached. As the tanks are tested to 100 lbs. pressure, all danger of bursting is avoided, and as the air which is pumped into the tank is pure air and not gases from the engine there is no danger from explosion by fire. The whistle can be blown in 30 seconds after starting the engine, and at 450 r. p. m. the pump will have a 60-lb. pressure on a 10-gallon tank in 10 minutes.

The Star Air Pump also comes with friction drive, having a 6-inch wheel attached to it which operates on flywheel, there being a speed-reducing device so as to get the best result. Tiebout & Company also make a complete line of chime and single tone whistles and furnish three different styles of complete whistle outfits, including tank, pressure gauge, and whistle and and tubing necessary for the connections. In addition to the air pump they also make the Star Bilge Pump.

W. & J. Tiebout show a complete line of their whistle and pump outfits at the Show, as well as other marine equipment and accessories which they handle. They will be glad to furnish further information at the booth or by addressing as above.

Patterson screw top Columbia Cartridge cell for Patterson wireless battery box.

Patterson Combination Screw top and Binding Post cartridge cell.

Patterson C. J—6 wireless battery box showing cells and coil.

### Patterson Wireless Battery System.

For the boat owners who use and appreciate the value of dry batteries for a source of ignition current, the exhibit of Stanley & Patterson at the Show will be particularly interesting. They will have there a complete line of the Patterson Wireless Battery System which solves the problem of a satisfactory battery set for the motor boat. These outfits come in various sizes to suit the ignition system of from 1 to 6-cylinder engines, in both jump spark and make-and-break types. Those who have had

# Sails That Win

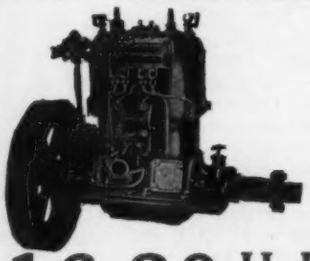
AWNINGS and COVERS that fit and keep the water out.

**We make everything, made of canvas, for motor and sail-boats and make it well**

You will find our prices right

## John Curtin, Inc.

4 South Street, New York City



**MADE BY GUNMAKERS**

**GOES LIKE A BULLET**

**16-20 H. P. $200.00**

**For 30 Days Only**

WE are catering to, and are getting, the highest grade, highest powered, most critical engine trade in America. To do this we employ a corps of skilled mechanics, who demand, and can get, a wage that would make their employment impracticable in an engine factory devoted to "commercial" engine building and nothing else. Most of these men are gunmakers who have spent years in the government gun shops. It has taken years to get this skilled force together and to keep them intact for the rush season, we make the two cylinder engines during the duller period. This enables the customer to get an engine made by this skilled force instead of investing in a motor that is made by the cheaper labor that strictly "commercial" engine building demands. The price is no greater than the commercial article. Write for catalogue "B". If interested in speed write for catalogue "S".

**THE EMERSON ENGINE COMPANY, Inc.**

**ALEXANDRIA, VIRGINIA**

ESTABLISHED 1840 INCORPORATED 1909

# Geo. B. Carpenter & Co.

MOTOR BOAT ACCESSORIES

***Our New Plant***

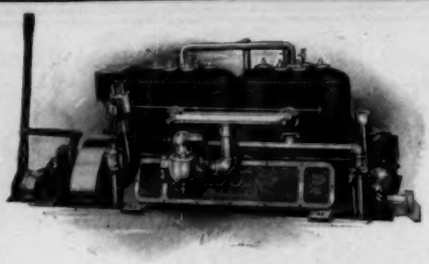
*"Three times the space and three times the ability to handle your orders"*

***Send 20cts. to cover postage on our 500 PAGE MARINE SUPPLY CATALOG No. 101 and 1912 Supplement and Discount Sheet.***

GEO. B. CARPENTER & CO.

(New address) 430 to 440 WELLS ST. CHICAGO

**THE GREAT CENTRAL MARKET**



Poppet Valve Type

Penn Yan, N. Y., Sept. 30, 1911.

My dear Mr. Trebert:

In reply to your letter of the 29th instant, will say that up to the present time, I have run the "L'Hirondelle" all summer without a single adjustment of any kind. One day, when getting ready for a race, I did try the needle valve in various positions, but found it made little difference. Otherwise I have done nothing at all to the engine, and she always brought me back.

I note with interest the details of your new designed motors, and if they are anywhere nearly as good as the one I have, should you at any time organize a company, I would be pleased to subscribe for some of the stock.

Yours very sincerely,

(*Signed*) L. GEROME OGDEN.

TREBERT RELIANCE PATENTED GASOLINE ENGINES

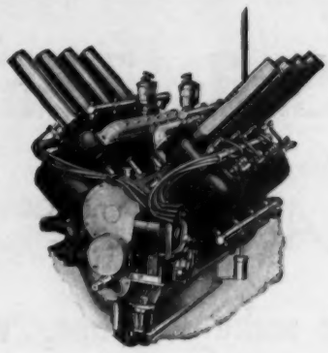
**The Result of Fourteen Years' Experience**

***Sold Under a Positive Guarantee***

1. The lightest engine of the bore and stroke whose light weight is not secured by the sacrifice of strength. Our lightness is secured through skillful design and the elimination of needless parts.

2. THE ENGINE WITH THE MINIMUM MECHANICAL RESISTANCE. In the Piston Valve motors one valve does the work of intake and exhaust, thus eliminating 50 per cent. of the valve-driving waste energy.

3. THE ENGINE FREE FROM VALVE TROUBLE. THERE ARE NO GRINDING VALVES. In the Piston Valve motors, in case of loss of compression, the valve can be lifted out and compression rings, like those used in the pistons, quickly and easily inserted.



8 V Piston Valve Type

A MOTOR has just as many chances of breaking down as it has parts. Every part eliminated by skillful design takes away one chance of engine trouble. With this in mind, consider our PISTON VALVE MOTOR. ONE VALVE, ONE SPRING, and ONE CAM PER CYLINDER do the work, against SIX in the ordinary motor cylinder. ONE CAM SHAFT drives all. The valves NEVER NEED TO BE GROUND.

**Buy an H. L. F. Trebert, and forget your engine troubles**

**H. L. F. Trebert Engine Works**

**495 St. Paul Street** **Rochester, N. Y.**


ignition trouble due to faulty wiring and run down batteries will appreciate the value of the Patterson Wireless Battery boxes.

The fundamental principle of the Patterson Dry Battery System is a Screw Top Battery Cell which, without wires or binding posts, screws into one solid rubber composition plate, automatically making all connections. This moulded rubber plate forms a substantial, waterproof cover for the Battery Box, and as all contacts are moulded solid into this rubber plate, no possible loosening of connections, trouble from dampness, or anything of this sort is possible. The Battery Cells are SUSPENDED from the Plate and do not rest on any surface where dampness can collect.

Patterson Battery Sets are made in several sizes and styles ranging in price from $3.00 to $30.00, covering every possible ignition need, from the smallest 1½-H. P. single-cyl. engine up to the large 4 and 6-cyl. outfits.

For the benefit of out-of-town boat owners, Stanley & Patterson have compiled a Treatise on Gasolene Engine Ignition, with cuts, showing just what type of ignition outfit should be used with practically every make of gasolene engine. This treatise will be sent to every reader of "YACHTING" who may request it. Free, by addressing Stanley & Patterson, 23 Murray St., New York.

### Impervo "Slickers" and Waterproof Clothing.

The Impervo Waterproof Clothing which E. A. Armstrong of 215 West Kenzie St., Chicago, Ill., has been making for yachtsmen's use, has been improved this year through additional experimenting so that it is not only absolutely waterproof but it has a long life. Yachtsmen generally find the use of the oilskin "slicker" particularly disagreeable, owing to the fact that in the heat and dampness of the cabin where they are stowed away they become sticky and odoriferous and usually get rolled up into a ball that is very hard to put on and which usually keeps you "stuck" wherever you happen to sit down. E. A. Armstrong's Impervo has been adopted by the U. S. Army and over 500,000 yards are now being treated by him for shelter tents, officers and men's waterproof clothing, etc. It is guaranteed not to stick in any climate.

Impervo is a rubberless product having all the good qualities of rubber and none of its faults, and it will not blister or peel in any climate. It comes in either olive-drab color or black. The cloth is made up into all kinds of coats from the short trouser and jacket of the seaman to the long officer's coat, or poncho for military use. Waterproof hats are also made in sou'wester shape or with round crown with brim all way around.

### Quick Appreciation of Leitz Binoculars.

The remarkable sale of the superior Leitz prism binoculars made by the house of Ernst Leitz, Germany, is not only a remarkable tribute to the superior qualities to be had only in Leitz glasses, but reflects the quick appreciation of Americans for the best of anything. Leitz glasses embody years of experience of Ernst Leitz, gained in the creation of the highest type of scientific instruments and microscopic apparatus.

Leitz glasses are the standard of many foreign military and naval services and are being rapidly employed by the officers of the U. S. Naval Fleet. At the present time, the U. S. Army is negotiating for the use of Leitz glasses for various branches of the Service. The Leitz glass has an immense penetrating power, exceedingly large field, marvelously sharp definition and a great rigidity.

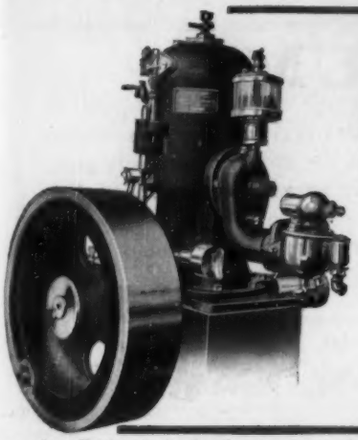
It is commonly claimed by various makers that their glasses excel in every respect. The makers of Leitz glasses offer them on their merits to the most critical optical authorities knowing they are above competition. Boat owners have been quick to appreciate the ability of the Leitz glasses to bring distant objects within easy view, enabling them in yachting contests to follow the boats and obtain a more keen enjoyment of the sport.

The New York office of Ernst Leitz is located at 30 East 18th Street where a complete stock of the Leitz Binoculars is on view.

### For the Protection of Your Boat.

At this season of the year when owners are beginning to think of putting their boats overboard, the question of insurance is one that should be given very serious consideration. This does not only apply to large boats, but particularly to small boats which are left alone during the week when they are not in use. The owner of such a craft may not be aware that he can guard against her loss or damage through accident, stormy weather or fire by insuring in a marine insurance company. This is now possible and owners should not take the chances of partial or total loss when an insurance company at a small premium will assume the risk.

By insuring with the Ins. Co. of North America the owner of a motor boat guarantees himself against the loss of his boat. This does not mean only when he is aboard of her, but at all times when she is afloat between the first of May and the first of November, or when she may be lying at her moorings, or for the balance of the year when she is laid up on shore or some storage basin. The rates are surprisingly low and before going into commission this spring every boat owner would do well to look into this subject.



# HARTFORD 2-Cycle Marine Engines

MADE IN SINGLE AND DOUBLE CYLINDERS
THOROUGHLY GUARANTEED IN EVERY WAY

**5 Sizes FROM 3 TO 10 H. P.**

ASK FOR CATALOG *"M"* AND PRICES

**THE GRAY & PRIOR MACHINE COMPANY**

656 Suffield Street - - - - - - - - - HARTFORD, CONNECTICUT, U. S. A.

PORTLAND, MAINE BRANCH: 117 COMMERCIAL STREET

# SPLITDORF MAGNETO

*"Always there"*

Stress of contest and hard usage have demonstrated

## Splitdorf Supremacy

If YOU insist upon SPLITDORF EQUIPMENT you will find that a SPLITDORF MAGNETO gives your motor more power—that it makes your motor run much smoother and quieter—that you never have any ignition trouble—that it gives the same efficient service without attention even after thousands of miles—that you can run slower than with any other magneto—that the engine never skips—that it is simple, positive, reliable—in short, that it is

**AN IDEAL IGNITION SYSTEM**

*Write for our "Racing Record"*

**C. F. SPLITDORF**

Walton Ave. and 138th St.
Branch 1679 Broadway NEW YORK
CHICAGO DETROIT BOSTON KANSAS CITY LOS ANGELES SAN FRANCISCO

# SHIPMATE RANGES

8 SIZES 11 STYLES

Old Shipmate stove, for many a cruise true shipmates have we been,
And both together, you and I, all weathers have we seen.
In oily calm and screaming gale, you've proved a trusty friend,
So shall they find us, dear old stove, true shipmates to the end.

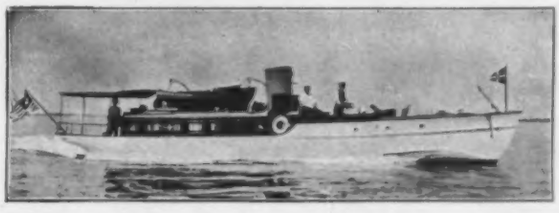
THE STAMFORD FOUNDRY COMPANY

Established 1830. STAMFORD, CONN.

# GASOLINE YACHTS AND ENGINES

## NOTED FOR RELIABILITY

Tregurtha Water Tube Boilers, Steam Launches and Engines
Electric Light Outfits



## MURRAY & TREGURTHA CO.

340 West First Street South Boston, Mass.

New York Office, Room 1228, 150 Nassau St. Telephone, 5215 Beekman

# THE STAR AIR PUMP

WITH split cam and hinged boxes can be attached to propeller shaft without uncoupling the shaft. Stroke 1½ inches, bore 1½ inches. This is the most compact air pump made. It is entirely out of the way, and the throw of a small lever puts it into action, or stops it, while the engine is running.

**No appreciable extra power is required to operate**

The whistle can be blown at thirty seconds after starting up the engine. It will pump a 10-gallon tank up to 60 pounds pressure in ten minutes, with the engine making 450 revolutions per minute.

**Send for Illustrated Catalogue and Price List**

**W. & J. TIEBOUT** MARINE HARDWARE **118 Chambers St., New York City**


### Havoline Oils.

The following is one of several kinds of novelty advertising matter distributed by the Havoline Oil Company at the New York Motor Boat Show that seemed to make a hit with the motor boat enthusiasts:

PERVERTED PROVERBS.

It's a poor engine that won't work both ways.

A motor in your boat is worth two in the shop.

It's a wise man that knows his own engine.

Necessity is the mother of Havoline oil.

You'll never score your engine 'till the oil runs dry.

Too many mechanics spoil the engine.

Beware of careless lubrication; a small overheated bearing will stop a big engine.

Take care of the oiling and the engine will take care of itself.

Oil up an engine in the way it should be done and in its old age it will not go back on you.

Havoline oil is the better part of economy.

Early to oil and early to clean makes an engine healthy, speedy and fast.

Neglect of lubrication goes before destruction and a "know-it-all" engineer sends the engine to the junk heap.

Uneasy works the spark that is clogged with carbon.

Inferior lubricants are cheap but Havoline oil is best.

A fool neglects his lubrication where wise owners watch the oil cups.

There's many a slip 'twixt the oil cup and the cylinder.

A good lubricant turns away many troubles but bad treatment of an engine stirs up its anger.

He that keeps his engine well oiled, keeps its life; but he that opens wide his ears to the makers of poor lubricants, shall meet disaster.

A fool despises a lubrication expert's instructions but he that uses Havoline oil is prudent.

A new engine runs smoothly—if well oiled.

### Salisbury Marine Construction Co.

The Salisbury Marine Construction Co., of Salisbury, Md., are builders of all kinds of pleasure boats. The firm specializes in boats from 30 feet to 120 feet in length. They have a large erecting shop and every up-to-date facility, which, together with their location enables them to turn out boats of exceptional value and high grade work on a given sum. The plant is located at Salisbury, Md., near the head of Chesapeake Bay.

### Yacht Sail Makers.

John Curtin, Inc., of 4 South St., New York City have been doing the large end of the SAIL work in South St. for years, and besides doing merchant marine work they are experts in making yacht sails, having made sails for the small Bug Class of Long Island Sound to the large Schooner Yacht Karina. Curtain Sails are on many of the winning yachts on the coast. The firm started making sails back in 1850 and the succeeding years have given them experience that few have gained.

Since the death of Mr. Curtin 15 years ago, the business has been managed by Mr. George R. Burrows and it is due to his straightforward way of doing business that the firm is in such good standing. Mr. Burrows has shown very good judgment in the help he has employed to assist him. Mr. Fred Benshine started as a boy under Mr Burrows' management and today is without doubt one of the best designers of a sail in the trade. Mr. Burrows' assistant, Mr. William Fuller does the outside work and the measuring.

### Roper Propellers.

With the exhibit of the Kershaw-Williams Co., space 20-23, C. F. Roper & Co., of Hopedale, Mass., will demonstrate the advantages of their Roper Propeller. This consists of two distinct propellers working in the same hub and operated by a lever so that the pitch of the blades may be changed at will. With this system, by changing the pitch of the two sets of blades, a constant load can be kept on the engine at all times, whether the blades are set at neutral or at slow or high speed.

When the controlling lever is full forward or full back the pitch of both pairs of blades is the same. As the lever is moved from full forward the front pair turn on their bearings toward "neutral," the back pair remaining at "full forward," and keeping the load on the engine.

When the front pair have reached a predetermined angle, the back pair begin to turn toward neutral, the front pair begin to oppose the forward thrust of the back pair and the boat's speed is slightly reduced.

Continued motion of the lever reduces the forward thrust of the back blades and increases the backward thrust of the front blades until they balance and the real neutral is reached. The boat is at rest with full load on the engine.

Sizes. The propellers are made in every size from 10 to 20 inches, and every other size from 20 to 26 inches, the pitch running from 12 to 16 inches for the 10-inch wheels and 26 to 32 inches for the 26-inch wheels.

The prices range from $25.40 to $82.00.

PART OF OUR OUTDOOR STORAGE YARD

**Wintry? Yes! But—**
**Spring is here!**

*Have you ordered that*

*NEW BOAT?*

Milton Boat Works Rye, N. Y.

# JEFFERY'S MARINE GLUE

**THE PURPOSES FOR WHICH THE VARIOUS GRADES ARE INTENDED:**

**For Deck and Hull Seams of Yachts and Motor Boats**
—USE—
**No. 1, Extra Quality**
Black, white, yellow or mahogany color. Give black the preference: it is more elastic and satisfactory in every way.
Specified by all first-class designers, and used exclusively by all the prominent builders.

**For Waterproofing Canvas, For Covering Decks, Tops of Cabins, Canvas Boats and Canoes**
—USE—
**No. 7 Soft Quality**
Black, white, or yellow. It not only waterproofs and preserves the canvas, but attaches it to the wood, and with a coat of paint once a year will last as long as the boat.

**Waterproof Liquid Glue is used for the same purposes as Number Seven Soft Quality**
Also in combination with calico between the double planking of diagonally built boats.
It is ready for use and requires no heating; simply open the can and paint it on like ready-mixed paint.
This glue will also attach cork, felt, rubber, leather, and linoleum to iron, steel, or wood.

**Special Marine Canoe Glue**
**Best filler for Canvas**
Our 25c. emergency cans made a big hit. Every canoeist should carry one; it is as valuable to him as a repair kit to a bicyclist or automobilist.
It is a Johnnie-on-the-spot article that no boatman should be without. Sent by mail on receipt of 30 cents in stamps.

**FOR SHIPS' DECKS USE** { **No. 2, First Quality Ship Glue** / **No. 3, Special Navy Glue** } **All put up in 1, 2, 3, and 5-lb. cans; also 14, 28, 56, 112-lb. boxes either tin or wood**

**INSIST ON HAVING THE *RIGHT* KIND IF YOU HOPE TO OBTAIN SATISFACTORY RESULTS**

The largest dealer in your town carries this in stock; if not, he should. Tell him to write us for the agency. AGENTS WANTED EVERYWHERE.

**For Sale by all Yacht, Boat and Canoe Supply Houses and Sporting Goods Dealers. Send for Samples, Specimens, Circulars, Directions for use, etc.**

**L. W. FERDINAND & CO. :: Importers and Distributors ::** 201 SOUTH STREET BOSTON, MASS., U. S. A.

ROWDY
Champion N. Y. 30-Footer, 1911, uses ROBINSON sails exclusively

Driving power and fit are the factors that have made ROBINSON sails winners. Durability and moderate price have made them popular.

ROBINSON spray hoods are indorsed by yacht owners and designers generally. We supply all types from simple dory hoods to elaborate canopies for the tenders of palatial steam yachts.

ROBINSON awnings, whether covering a mere cockpit or the deck of a "Vanadis", invariably give satisfaction.

Send Your Requirements

**G. W. ROBINSON & CO.**
**Sail Makers**

**CITY ISLAND - - - - NEW YORK**



# Steering Gears
## and Marine Fittings

**FOR POWER AND SAIL YACHTS**

**Edson Manufacturing Co.**
***Established Eighteen Hundred and Fifty-nine***
260 ATLANTIC AVENUE, BOSTON, MASS.



# $150 KERMATH $150

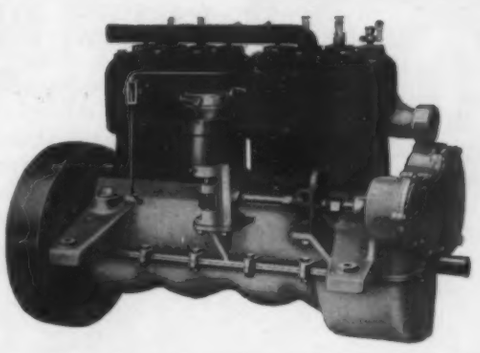
**Made by Kermath Mfg. Co., Detroit, Mich.**

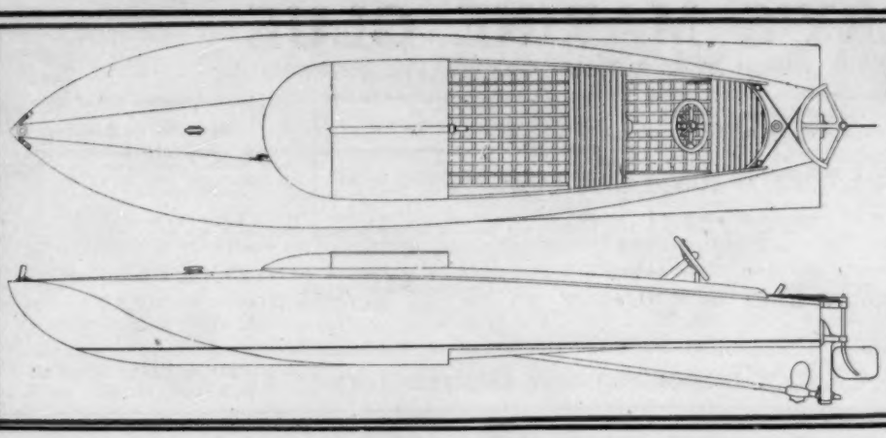
**4 Cylinder, 4 Cycle, 3½" x 4", 10-12 H. P.**

*"The engine you have hoped for."*

**SOLE DISTRIBUTORS:**

**MORTON MOTOR COMPANY,**
**47 East Fort St., - Detroit, Mich., U. S. A.**





**Breese Hydroplanes**

**30 Miles Guaranteed**

This Speed will make this boat a winner in any race under the present A. P. B. A. Rules.

**17 Ft. 6 Inches**

This little boat is big enough for three persons and small enough to be carried on a small yacht.

**$2150. Complete**

This price includes a complete equipment of cushions, boat cover, speedometer, lights,—in fact the boat ready for use.

**BREESE & BREESE**

**38 EAST 23rd. STREET NEW YORK CITY**

### A Marine Hardware and Accessory Catalog.

The catalog of marine supplies which Geo. B. Carpenter & Co., of Chicago, Ill., have ready for distribution contains a full and descriptive list of every kind of marine hardware and specialty from a brass deck cleat to a whistle outfit that will prove invaluable to boat users, especially at the fitting out season. This catalog contains over 500 pages, and in addition to the catalog itself contains full and complete information covering several chapters on the operation and handling of boats that will be of great practical use to yachtsmen. It will also come in handy if one happens to be away from a port where such supplies are not procurable and he has to order by mail.

The wonderful growth of the marine and motor boat supply business of this firm in the last few years has resulted in such an increase in business that the old South Water St. store, which has long been a landmark in Chicago, is no longer adequate to meet their needs, and the Company announces that they have abandoned the old store and are now in larger quarters on the corner of Wells and Michigan Sts., Chicago. The new premises occupy about half a city block, with a floor space of 150,000 square feet.

### A Marine Binocular.

Owing to the growing demand for a strictly high grade binocular for marine use at a reasonable price, Pinkham & Smith of 288 to 290 Boylston St., Boston, Mass., have placed on the market a binocular glass at a moderate price. This is the Stereo-Visioscope which the firm guarantees to be one of the finest and most satisfactory glasses for yachtsmen, irrespective of cost. The price of this glass is $33.75, and the manufacturer will be pleased to send full descriptive matter and price list upon request. The Stereo-Visioscope has been refined and improved until it does not suffer in any essential particular with any binocular on the market, no matter what the price or make.

### Speed Propeller Wheels.

Bryant & Berry, of 28 W. Atwater St., Detroit, Mich., manufacture a special design propeller for speed use which they claim is the strongest and lightest wheel made and at the same time absolutely weedless.

Bryant & Berry claim that their wheels are correctly designed and they guarantee them to increase the speed of any launch from one to three miles per hour. They are so designed as to give a differential pitch and concave curve from the hub to the edge of the blades, the object being to lessen the possibility of an air pocket forming on the forward side of the propeller. This reduces the percentage of slip by having the driving side of the propeller work from the hub to the end of the blade. These propellers are made in all sizes in both two and three blades, to fit any size and type of craft. The prices range from $2 to $27.

### Weckler Boats and Hydroplanes.

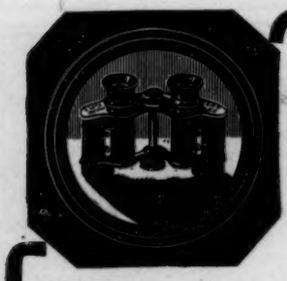
The Weckler Boat Company of 2715 Irving Park Boulevard, Chicago, Ill., are making a specialty of a number of 26-foot mahogany speed boats, powered with 100-H.P. Van Blerck special motors. A limited number of these boats are offered this season for spring delivery. The price is as reasonable as the grade of work and the attention to details that is essential in high speed craft permits. The guaranteed speed is 35 miles per hour.

The Weckler Co. have license to build under Fauber patent, the well known Fauber type of hydroplane. Their workmanship is of the highest order.

### Bayonne Launches.

The Bayonne Launch Co., of Bayonne, N. J., exhibit in the basement one of their 25-foot stock boats. This is a 25-foot boat designed by M. M. Whitaker of New York, having a beam of 5 feet and draft of 2 feet and equipped with a 12-H.P. Eagle engine turning up 700 r. p. m., with which she is capable of a speed of 12 miles an hour. The boat is laid out with the engine in the forward end, under a hinged hatch, the cockpit being protected by an automobile canopy top.

Bayonne Launch Co.'s 25-Foot Runabout.



**LEITZ PRISM BINOCULARS**

**are selected for use on land and sea**

**IN THE ARMY AND NAVY OF VARIOUS NATIONS.**

**This fact will readily appeal to every Yachtsman as a recommendation that**

**A LEITZ PRISM BINOCULAR**

**suits best those who are most critical.**

**WHY** is a LEITZ PRISM BINOCULAR superior to all others: **BECAUSE** it is manufactured by the same scientific establishment that leads the world in quality and output of microscopes and other scientific instruments.

**Write for our Handsome New Catalogue 44-J**

**Our Literature will tell you all about**

ERNST LEITZ WETZLAR

**U. S. Branch**

**ERNST LEITZ**

**New York**
**30 East 18th Street**

# Havoline Oil

***For Marine Motor Lubrication :: :: ::***

**"IT MAKES A DIFFERENCE"**

**Highly Filtered**
**Free From Carbon**

HAVOLINE MOTOR OILS

**Scientifically Fits**
**All Engine Needs**

*Send for "The Havoline Book of Short Cruises and Day Trips"*

**HAVOLINE OIL COMPANY - *Main Office, 17 Battery Place* - NEW YORK CITY**

## ACCESSIBILITY

That's just one of the many strong features of the

## Fairbanks-Morse

**New Type "K"**
**Heavy Duty, Slow Speed**

## Marine Engine

TWO-CYCLE
ONE AND TWO CYLINDERS,
7½ AND 15 H.P.

***Other Special Features***

Very low fuel consumption.
Will not base fire
Universally large bearing surfaces.
Every bearing removable and renewable.
Igniter has ground taper fit to cylinder. No gasket.
Gravity lubrication, or put the lubricating oil in the fuel tank. Either system satisfactory.

These and other desirable features with Fairbanks-Morse material, workmanship and inspection system make the type "K" the best value ever offered at anywhere near the price. Write for Catalog No. D. K 1316

**High Speed Two Cycle Engines, 3½ to 24 H. P. Four Cycle Engines, 4½ to 40 H. P.**

***BEST PROPOSITION FOR AGENTS AND BOAT BUILDERS***

**Fairbanks, Morse & Co.,** 900 S. Wabash Avenue, Chicago Or Any of Our 30 Branch Houses

The Canadian Fairbanks-Morse Co., Limited, Montreal, Sole Agents for Canada

Many of the most Important motor boat Races have been won with

## *HYDE TURBINE TYPE PROPELLERS*

They are unexcelled in Design, Material and Workmanship

You can be sure of getting results with a

**HYDE PROPELLER**

*Write for 1912 Catalogue*

**HYDE WINDLASS CO. - Bath, Me.**

# FOR YACHTSMEN

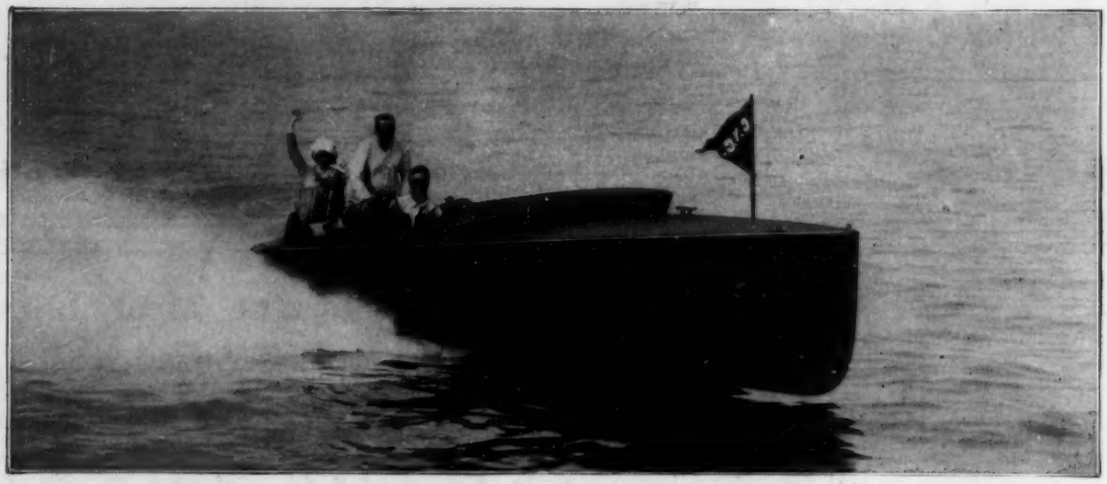
## A Strictly High-Grade Binocular is an Essential Accessory

We guarantee OUR STEREO-VISIOSCOPE, PRICE $33. 75, to be one of the Finest and Most Satisfactory glasses for Yachtsmen ever produced, irrespective of cost. We solicit comparison for quality. The price, $33. 75, tells its own story. We shall be pleased to send advertising literature on request. :: :: :: :: ::

## PINKHAM & SMITH COMPANY

288-290 Boylston Street BOSTON, MASSACHUSETTS 13½ Bromfield Street

# WECKLER-FAUBER HYDROPLANES
## WITH
# GUARANTEED HIGH SPEEDS



*Copyright 1911, by W. T. Skinner.*

**A RACING AND PLEASURE BOAT**

THE WECKLER BOAT COMPANY has recently received license to build the well-known Fauber patented Hydroplane. Fauber Hydroplanes have demonstrated their safety, seaworthiness and speed. Pioneer, Disturber II, Red Top III, and many other famous boats are Mr. Fauber's design. The Fauber Hydroplane is patented in all parts of the world. We are prepared to build any size WECKLER-FAUBER HYDROPLANE desired.

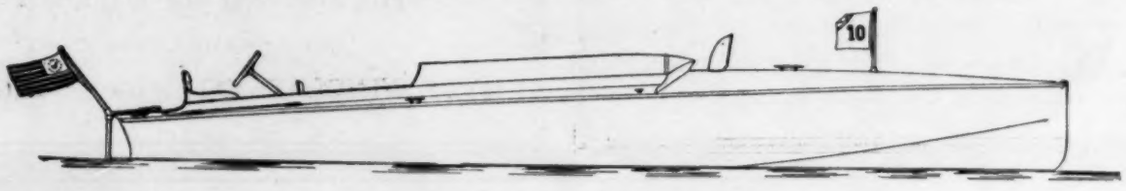
A limited number of special 26-foot boats built of mahogany and powered with 6-cylinder 100-H.P. special Van Blerck motors are offered. The price is as reasonable as full attention to detail will allow.

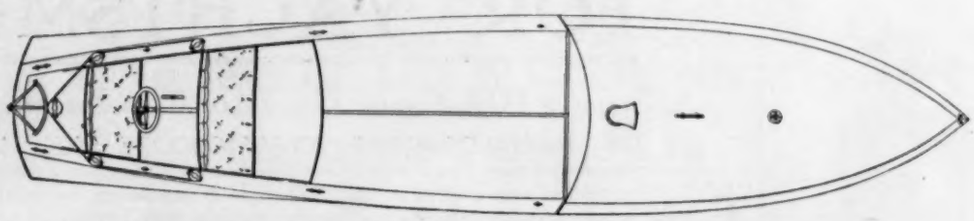
The guaranteed speed is 35 miles per hour.

WECKLER quality is established. We will build you a good boat completely equipped and furnished at a fair price to you and to ourselves. WECKLER boats are not cheap boats. Our workmen and materials are the best the market affords. Our prices allow building a boat that you will take pride in owning.

The WECKLER shops are at present filled to capacity on cruisers. Two 100-foot scows and a tug are building in the WECKLER yard. We cannot accept new orders, other than hydroplane work, for delivery earlier than September. A new brick building assures delivery of hydroplanes when promised.

If you are interested in WECKLER-FAUBER HYDROPLANES we will send full information.



## WECKLER BOAT COMPANY

**2715 IRVING PARK BLVD. - - - - CHICAGO, ILLINOIS**

## The Vicissitudes of the Famous Pilgrim

(Continued from page 220)

mooring in the inner harbor because the authorities were not inclined to grant her permission. So she was towed to the harbor entrance and anchored so far off the town that one might see Half Way Rock and other sea-marks from her deck.

Yachtsmen regarded the Pilgrim with mild interest and commented on the ups-and-downs that had driven her into the fuel business, yet patronage did not warrant the expense of maintaining the craft at "yachty" Marblehead. She was soon taken to Boothbay Harbor, Me., and again posed as a supply boat, anchored well in toward the head of the picturesque harbor.

In the summer of 1911 the Pilgrim went alongside the plant of the Adams Shipbuilding Company at East Boothbay where she was transformed to fit the fishing business. Her owner was a Boston man, who owned a section of South Carolina coast with headquarters at Beaufort. Many alterations were made, till the old Pilgrim measured 128 feet overall, 26 feet beam and 6.6 feet draft. Instead of the original sail area of 10,261 square feet she now carries about 6,000 square feet on two Oregon pine masts each measuring 60 feet in length. Large cargo capacity was secured by opening the deck with two hatches, the deck structures being removed to give room for handling gear. But the Pilgrim, despite these alterations, has accommodations for 20 men and her living quarters are as handsome and comfortable as when she was a yacht.

Two 4-cylinder gasolene engines, developing 35 horse power, were installed and gasolene tanks with capacity of 500 gallons were built into the hull. Two steering wheels were arranged, one being located on a bridge deck directly forward of the mainmast and over the motors, with which she will be steered when under power, the other being aft for use when under sail.

A dynamo furnishes current for 50 incandescent lamps as well as for operating a powerful searchlight and refrigerating plant. There is, also, an 8-horsepower motor for handling seines, boats and cargo booms. Two big boats swing from the davits abreast the mainmast and the fore rigging is a ladder for the use of the lookout who, from aloft, will scan the sea for schools of fish. A conspicuous funnel serves as a ventilator and muffler and gives the vessel the look of a powerful porgy fisherman of the steam type.

Though the Pilgrim still hails from Boston, she will be employed in Southern waters in research work preliminary to the upbuilding of deep sea and coastal fisheries upon modern methods of conservation. She is commanded by Capt. B. H. Spurling, of Boothbay Harbor who has been identified with the New England fishing industry over 40 years.

### Koven Tanks.

L. O. Koven & Bros., of 50 Cliff St., will have an exhibit at the motor boat shows, consisting of galvanized tanks for oil, gasolene or air mufflers; manifolds, etc.

This firm makes sheet iron and galvanized tanks, from the very smallest to the largest size, in material from 1-16-inch in thickness to any thickness that may be desired up to 1-inch. They employ a corps of competent engineers, cover a large range of work and their product goes to all parts of the world. Their plant consists of many departments, among them being the Light Tank Department, Heavy Tank Department, Pressure Tank Department, Special Plate Steel and Sheet Ironwork Department.

Paint the Bottom of a Deep Sea Cruising Yacht or a Fast Racing Launch with

→ S & M ←

**Marblehead Anti-Fouling, Green, White or Bronze**

SMOOTH—DURABLE—SLIPPERY—HANDSOME

THE MOST POWERFUL PREVENTIVE OF MARINE GROWTH PRODUCED

For WOOD or STEEL. It is NOT a Copper Paint and IS Non-Corrosive.

ABSOLUTELY GUARANTEED

FOR TROPICAL WATERS it is the only substitute for Copper Sheathing.

For Topsides—YACHT WHITE and VARNISH BLACK Deck Paints of all colors

STEARNS-McKAY MFG. CO., Marblehead, Mass., U. S. A.

Quality Cushions

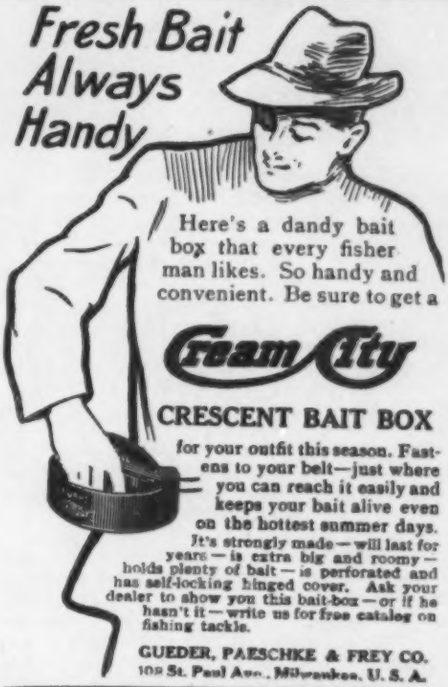
Mattresses, Pillows and Upholstery

*Manufactured since 1845 by*

M. W. FOGG

202 Front Street, New York City

*NO CATALOGUES*



*Fresh Bait Always Handy*

Here's a dandy bait box that every fisher man likes. So handy and convenient. Be sure to get a

Cream City

CRESCENT BAIT BOX

for your outfit this season. Fastens to your belt—just where you can reach it easily and keeps your bait alive even on the hottest summer days. It's strongly made—will last for years—is extra big and roomy—holds plenty of bait—is perforated and has self-locking hinged cover. Ask your dealer to show you this bait-box—or if he hasn't it—write us for free catalog on fishing tackle.

GUEDER, PAESCHKE & FREY CO.
102 St. Paul Ave., Milwaukee, U. S. A.

BOAT BUILDERS

Save 25% of labor cost of planking and decking on every smooth planked boat you build, and make a better job by using CUTLER'S PLANKING AND DECKING CLAMPS. Send for circular. Agents wanted.

The Cutler Clamp Co.

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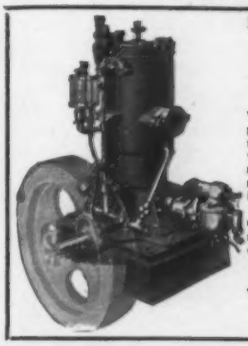

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## How to Build a 12-Foot Power Cruiser

(Continued from page 203)

Now, set the keel right side up at the proper angle and try each mould in its place, to see that it fits properly over the batten. Moulds 2, 3 and 4 should be on the after side of the section line with the face to it, the face being the side opposite the cleats and cross spall. Moulds 5 and 6 are the reverse of this, as shown on the perspective drawing of the form set up, the idea being to have the corner on which the planking will bear exactly at the section. The face corner should be flush with the bottom of keel batten so that the planking when laid on the mould will fit in the rabbet. Next fasten a cleat about 1½" square and 4" long to the mould on the face side with the lower side beveled to fit the keel batten, to which fasten it with one screw. As each mould is fitted, draw this screw but leave it in the cleat. Give the keel, stem and transom a coat of spar varnish all over.

SETTING UP.

Up to this point we seem to have done a lot of work with very little boat to show for it, but now it will begin to take form and the work is more interesting.

If possible set up the boat on a floor which gives a base to work from and rigid fastenings for braces, etc. If it is necessary to build on the ground, pieces of plank must be laid and carefully leveled to take the moulds, or the form can be set up on two fore and aft timbers which should be set about 2' 6" apart, leveled and braced. The moulds are set upside down and the cross spalls fastened to the timbers.

Assuming that a floor is available proceed as follows: Draw a center line and the section lines square across it. Start with mould No. 4 and place it upside down on the after side of the section line with its face to the line. Hold a plumb line to the center on the bottom cleat, which is now the top one, and set the mould so that it is plumb and the center directly over the center line drawn on the floor. Secure the mould to the floor at each side with cleats and brace it plumb in a fore and aft direction. Use screws in the cleats so that the boat will not be racked when the fastenings are taken out.

Set the other moulds in a similar manner, placing 2 and 3 on the after side and 5 and 6 on the forward side of the section lines, bracing all securely and being sure that they are plumb. You will remember that the upper ends of the moulds were fitted to a straight and level line, so it is essential that the floor be straight to have the moulds at the proper height. If it is irregular the ends will need some cutting to suit, or shims placed under them. The cross spalls were placed on the moulds to a straight fore and aft line as a guide for setting up. They must all be level and in line, which may be tested with a straight edge. Take plenty of time and be absolutely certain that they are plumb, exactly centered and in the proper position both fore and aft and vertically, as the form of boat depends on the accuracy with which they are placed.

Place the keel in position and set in the screws holding it to the moulds. If the screw holes do not come right something is wrong and must be corrected. Secure the stem head to the floor with cleats around it, also a couple of nails "toed" through it into the floor. Should the stem not reach the floor, fit a block under it and fasten in the same way. Brace the transom rigidly, being sure that it is square across and has the proper rake; also brace the after lower end of keel, running the braces to some place overhead if possible to keep them out of the way. These latter are not shown on the sketch.

Now take a batten about 5-16"x3"x13' and with some one to help you, bend it over the moulds in various places to test the fairness. When laying in the stem rabbet and against all the moulds it should give a fair line anywhere from keel to gunwale and if it does not, test the suspicious moulds to see if they are out of position. Should a mould be full or slack and show the same discrepancy on both sides, trim off a little or shim out as required until the batten shows fair. It is advisable to first fair a place midway between the keel and gunwale where a stiff batten should be fastened to insure the proper spacing of the moulds at this point and add rigidity. This should remain in place as long as possible.

Using the test batten as a guide, trim off the transom and rabbet so that the plank will fit nice and snug. Even now it will be safer for the amateur to leave just a little wood to be cut away as each plank is fitted.

This finishes the form and next month we will begin planking, but don't wait until then to get the material—in fact it should be bought when the job is started in order to let it dry. The planking is white cedar, finished 5-16", and should be planed on both sides at the mill a little thicker than this, so that it can be smoothed with a hand plane. There will be 9 strakes on each side and unless the boards are unusually wide, one will be required for each strake with two or three extra ones in reserve for accidents. Get stuff long enough to insure cutting off all checks in the ends and buy dry and absolutely clear lumber, especially if the boat is to be finished bright. It costs a little more but unsightly knots and other blemishes are always in evidence.

(To be continued)

### Gray-Hawley Outfits for 1912.

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Where 4 dry cells are used in series, get type 346 Columbia Multiple Battery.

Where 5 dry cells are used in series, get type 356 Columbia Multiple Battery.

## Hints on Buying a Boat

(Continued from page 204)

If the craft is a keel boat with outside ballast, look carefully at the heads of the bolts which hold this ballast on. They will come up through the keel and should be of bronze, though galvanized iron bolts are sometimes used with iron keels. Look at the base of the frames where they join the keel for signs of rot or decay. A knife will tell whether the wood is hard and in good condition.

While examining this part of the boat see if the bilges are clean or are filled with shavings, decayed wood and sweepings from the cabin floor. Some owners leave their bilges in very bad condition and never clean them out. This is apt to hasten deterioration of the wood and you will frequently have to take out several inches of this muck before you come to the wood itself. Also beware of cemented spots in the bottom of the boat. While not always the case, the bottom of a boat along and over each side of the keel is often plastered with cement to hide deterioration in the wood and to cover up soft spots. In case this is done it is impossible to tell the condition of the wood under it unless the cement is removed, though a soft plank might be detected

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from the outside if the exact spot can be located.

If the boat is a gasolene craft there may be a good deal of oil and grease from the engine in the bottom or on the bilges, and this should be scraped away so as to see the condition of the wood; and while oil may preserve the wood, too much of it makes a foul smelling boat.

While one cannot always tell whether a boat is tight, evidence of too much water in the bottom of a boat can be noted by looking closely at the inside of lockers that reach to the floor, and under the transoms in the cabin. If sediment from the bilge, rotted shavings, etc., are found there it is a pretty sure sign that water has been there, more or less. The fronts of the transoms where they touch the floors will show signs of water by discoloration of the paint or varnish.

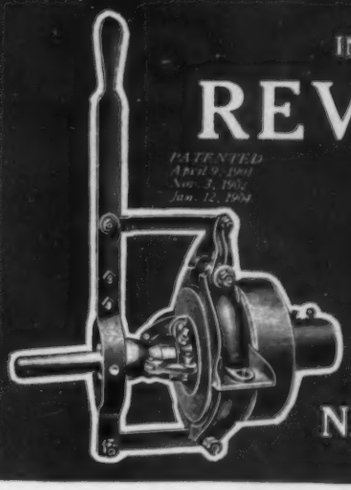
Look at the bilge stringers and sheer clamp, along the upper ends of the frames, ascertaining in what condition they are. Here also can be seen the kind of fastening that is used in the boat, for the nails and rivets are usually clinched on the inside of the frames or stringers. Another place where soft spots should be looked for is under the cockpit floor, or away aft under the stern deck. It may be necessary to take off your coat and crawl into these openings with a candle to observe the condition, but as there is but little ventilation here a boat is apt to sweat on a hot day and make the wood rot.

Also look where the ice box drains. If it drains into the bilge it usually leaves a scum along the keel or wherever the water touches, and this may frequently cause soft spots. I know of a steel boat where the ice box dripped on the inside of one of the plates under water, where it was not seen, and rusted the metal away so that just a thin outside shell was left, and when it was discovered a man could have poked his fingers through that portion of the plate by reason of the rust.

Look carefully to the mast step to see if it is sound, and if the mast shows signs of decay at the heel. Examine also the mast wedges where the mast goes through the deck. If the wedges do not make the opening water tight, water is apt to collect there and rot the mast at that point.

If the craft is a sailboat, look at the sails carefully both to get their condition and probable age. If they have been stowed away for any considerable time it is well to look for evidences of rats, as these frequently get into the sails and ruin them. In examining the sails look carefully at the bolt ropes. By twisting the rope so as to open the lays, one can tell whether the rope is in good condition, and can also judge its approximate age. When the insides of the lays are discolored and the same shade as the outside, the rope has had long service and its life pretty well gone; but if the interior of the lays are bright and new looking the rope is in good condition.

Don't be deceived in a boat because the outside looks a little rough. Paint will do wonders to a boat if she is sound and all right underneath. If it is a motor boat, special attention should be given to the motor, and if you are a novice you had better get the advice of an engine man. You cannot see the inside without taking it apart, and paint on the outside may fool the unwary. There will be a special article on this subject in the April issue.

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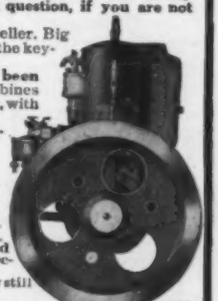

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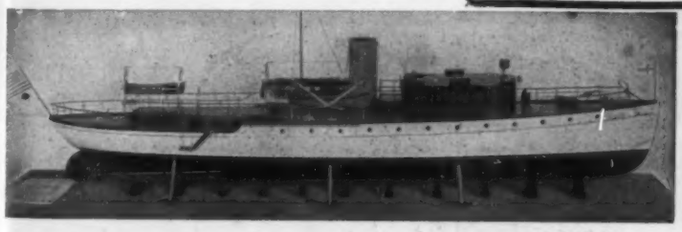

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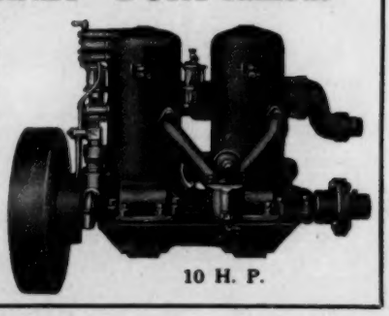

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## Fitting Out Number

which comes out just about the time the early spring days begin to send the boys out to yards and club houses to rip the winter covers off their boats and get their scrapers sharpened up. This will be a thoroughly practical number, but with enough good reading matter mixed in with it to make it one of the most interesting issues we have ever published.

**Improving the Cabin Arrangement.** *Some Conveniences for the Small Cruiser* is an article that will appeal to owners of craft under 30 feet in length, as it tells how the cabin and cockpit can be laid out so as to give greater comfort by utilizing every inch of the boat, by adding useful lockers, improving galley arrangement, getting increased head room, and, in fact, making her generally livable.

**A Good Cruise.** *Around Lake Michigan in an 18-Footer* is a good narrative by F. F. Curtis, of a long cruise in a little auxiliary that is filled with interesting incidents, including getting caught in the middle of the lake in a "breeze of wind."

**Going Overboard.** *Some Hints and Quirks for the Boatman,* is a useful article by Stillman Taylor on fitting out and solving the many problems that a boat owner is always running against in the operation and care of his boat and engine. It consists of terse, pungent paragraphs on a variety of subjects.

**Taking Care of Your Canvas.** The care and handling of sails is a mighty important subject for the sailboat sailor, and the article by G. W. Robinson in this issue not only tells how to take care of your canvas so as to get the longest life out of it, but how to get the greatest driving power by attention to those details that insure the sails keeping their shape and fit. The care and handling of light sails is also treated comprehensively.

J. T. Rowland in Labrador Costume.

**A Labrador Sailor.** J. T. Rowland, whose story *To Baffin Land in a Motor Boat,* has appeared lately in these pages, is a young Yale man who has spent several seasons sailing the Labrador with Dr. Grenfell, of the Labrador Fisherman's Medical Mission. He was one of the crew that delivered the 45-foot ketch Yale from the builder's yard in Maine to Battle Harbor in 1910, and is a thorough sailor. His story carries the conviction of authority. In April, he will have another article on *Exploring Hudson's Strait in a Motor Boat.*

In *Mess Room Talk* we will be glad to help you clear up any difficulties you may be up against in the operation of your boat and engine outfit. Ignition, propeller, power installation or any other troublesome subject will be gladly discusssed.

**Buying Your Spring Outfit.** This is the season of the year when boat owners dig down into their pockets and spend more or less of their accummulated wealth on the outfit of their dearest possession—their boat. Most boat owners take a pride in their craft and are extremely liberal in providing whatever is necessary for her safety or comfort, or that may add to her appearance.

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## The April Outing

The April OUTING opens with a stirring big game story by Paul Rainey. Mr. Rainey's photographs of rhinos and elephants that he encountered in East Africa are almost as striking as his account of his experiences, and text and photographs combine to make a big game yarn of unusual calibre.

The coming of spring is heralded with Samuel G. Camp's *Trout Fishing on Opening Day* that should make every lover of the flyrod go over his equipment and study the calendar.

Baseball fans will find that winter is over when they read *South with the Ball Teams.*

Hulbert Footner's *New Rivers of the North* carries the reader on through the canyons of the Upper Fraser, and *Footloose and Free* swings him back to Venezuela in the days of Castro.

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*The Motor Boat, Its Selection and Care,* by H. W. Slauson, in which is given much valuable advice on the purchase of a boat to fill your particular needs, and its subsequent care.

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*Outdoor Signalling,* by Albert Wells, describes a perfect method of signalling that will be very useful to yachtsmen, canoeists, campers and those who live outdoors.

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# HERE ARE FACTS WORTHY

## Boat, Engine, Equipment and Accessory Manufacturer's Attention

**They prove we have more than "made good" on our promises.**
**They are simple, direct, straight-from-the shoulder.**
**If you want to keep in touch with a "live" one, read them.**

THIS ISSUE OF YACHTING COMPARED WITH LAST MARCH SHOWS

**31% Increase in** display advertising,
**83% Increase in** full page advertisements,
**16-⅔% Increase in** half-page advertisements,
**46% Increase in** quarter-page advertisements,
**58% Increase in** total *number* of boat-for-sale advertisements,
**31-½% Increase in** boat-for-sale advertising through brokers,
**194% Increase in** boat-for-sale advertising from owners direct.

***THIS ISSUE IS THE BIGGEST ISSUE OF YACHTING EVER PUBLISHED. IT CONTAINS BY FAR THE LARGEST* AMOUNT *OF ADVERTISING, AND THE LARGEST* NUMBER OF INDIVIDUAL ADVERTISEMENTS.**

### WHY ALL THE FOREGOING?

**BECAUSE—**

Never before has YACHTING been so helpful, and well edited, a magazine as right now—and every month it will get better.

**BECAUSE—**

Through our aggressive circulation work the sale of YACHTING is now much greater than at any time in its history—and growing constantly.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

***Wise advertisers buy on a rising market. YACHTING offers them very much of a rising market***

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

The issues from April to July, inclusive, are the most important of the year.
April is the big Annual Fitting-out Number.
It will be a particularly good issue this year.
IT OFFERS ADVERTISERS NEW LIFE, NEW VITALITY, NEW CIRCULATION.
It will be a permanently useful issue with thousands of its readers.
Forms close about March 14th. Full details on request.
Advertising rates, $90.00 per page, pro-rated down to eighths.

Yachting
MOTORBOATING ··· SAILING

**Outing Publishing Company**
141-145 West 36th St., New York
122 So. Michigan Ave., Chicago

R. T. Fennah
*Advertising Manager*

Consult YACHTING'S Information Department on any of your problems. Its service is absolutely free.

# Sterling

THE ENGINE of REFINEMENT
*For the finest boats that float*

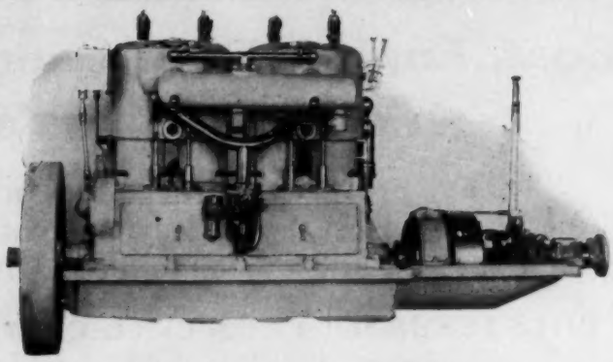
HERE'S ANOTHER
*"THE RACING ENGINE OF 1912"*

The 150 H. P., 8 cylinder racing engine, 5½" bore,—6¾" stroke. Manganese bronze base,—three point suspension. The ideal machine for speed boats and fast cruisers. Let us tell you more about it.

STERLING ENGINE COMPANY
1258 Niagara Street - BUFFALO, NEW YORK

NEW YORK—BRUNS, KIMBALL CO., 134 LIBERTY STREET
BOSTON—A. P. HOMER, 156 STATE STREET
CHICAGO—CHICAGO BOAT & ENGINE COMPANY, 1508 MICHIGAN AVENUE
HOUSTON, TEX.—BARDEN ELECTRIC & MACHINERY CO.
BALTIMORE, MD.—UNGER & MAHON, 119-121 E. YORK ST.
ROCHESTER, N. Y.—HALL, GIBSON COMPANY, 67 CLINTON AVENUE, SOUTH

## HERE IS ONE OF THE NEW ONES



The long stroke, heavy-duty cruising engine,—four cylinders,—25-35 H. P.—5½" bore and 8" stroke.

**The Engine for Cruising**
**The Engine for Work-boats**
**The Engine for Long Distance Cruising Races**

The biggest proposition ever offered a yachtsman. A machine absolutely dependable and without an equal on the market.

***Write for complete specifications of this machine***

BUFFALO GASOLENE MOTOR CO. BUFFALO N.Y.

# Engine or Service—Which?

OTHERS may seek to sell you ***engines.*** We will sell you ***service.*** There's a big difference. What you want is not a certain amount of metal in the form of cylinders, pistons, and what not, but STEADY, UNFAILING POWER FOR YOUR BOAT.

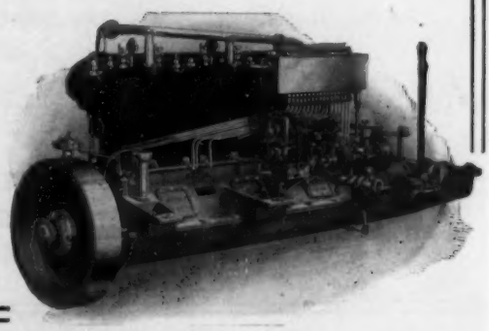
¶ That is all the builders of BUFFALOS have for sale. They offer it in packages of 20 different sizes—3 to 125 h. p. If you have a launch, speed boat, cruiser or work boat, there is a BUFFALO that will bring out the very best it has in it with a minimum of trouble and expense. The one important thing about BUFFALO engines is that they are ***always reliable.***

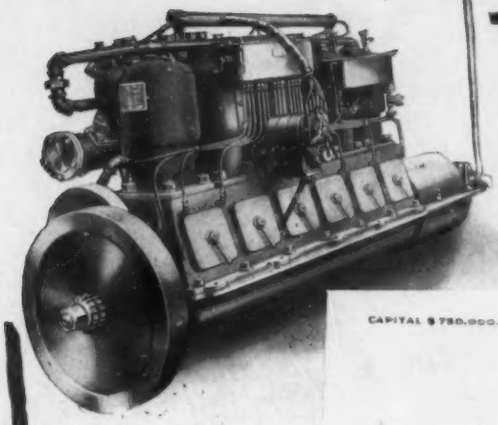
TWENTY MODELS 3 to 125 H. P.

Get the new "Buffalo Book"
"The Engine of Constant Service"

REGULAR HEAVY DUTY HIGH SPEED

**BUFFALO GASOLENE MOTOR CO.**
1260-1272 NIAGARA STREET BUFFALO, NEW YORK





# 15,500 Miles in Five Years Without Repair

The actual record established by a "Speedway" Motor Boat equipped with the famous "Speedway" Engine. Read her owner's testimony.

CAPITAL $ 750,000. UNITED STATES DEPOSITARY SURPLUS $ 250,000.

**THE National Bank of Commerce**
OF DETROIT

July 12,1911.

Mr. John J. Amory,
Gas Engine & Power Co.,
Morris Heights, N.Y.

My dear Mr. Amory:-

I have your letter of July 10th suggesting that we enter the Rainbow in the Great Lakes Power Boat League Cruise to contest for a prize offered by Mr. Scripps.

I am not much on cruising myself, especially for prizes, preferring to go it on my own hook and at my own convenience.

You will be interested to know that the Rainbow has logged a total of 15,500 miles since she came out, this being her fifth season.

She has undergone no repairs to hull or motor and insofar as I can see is in as good condition today as when you turned her over to us.

A record like this is the best prize that any man can have.

With kind regards, and thanking you for your suggestion, I am,

Very truly yours,

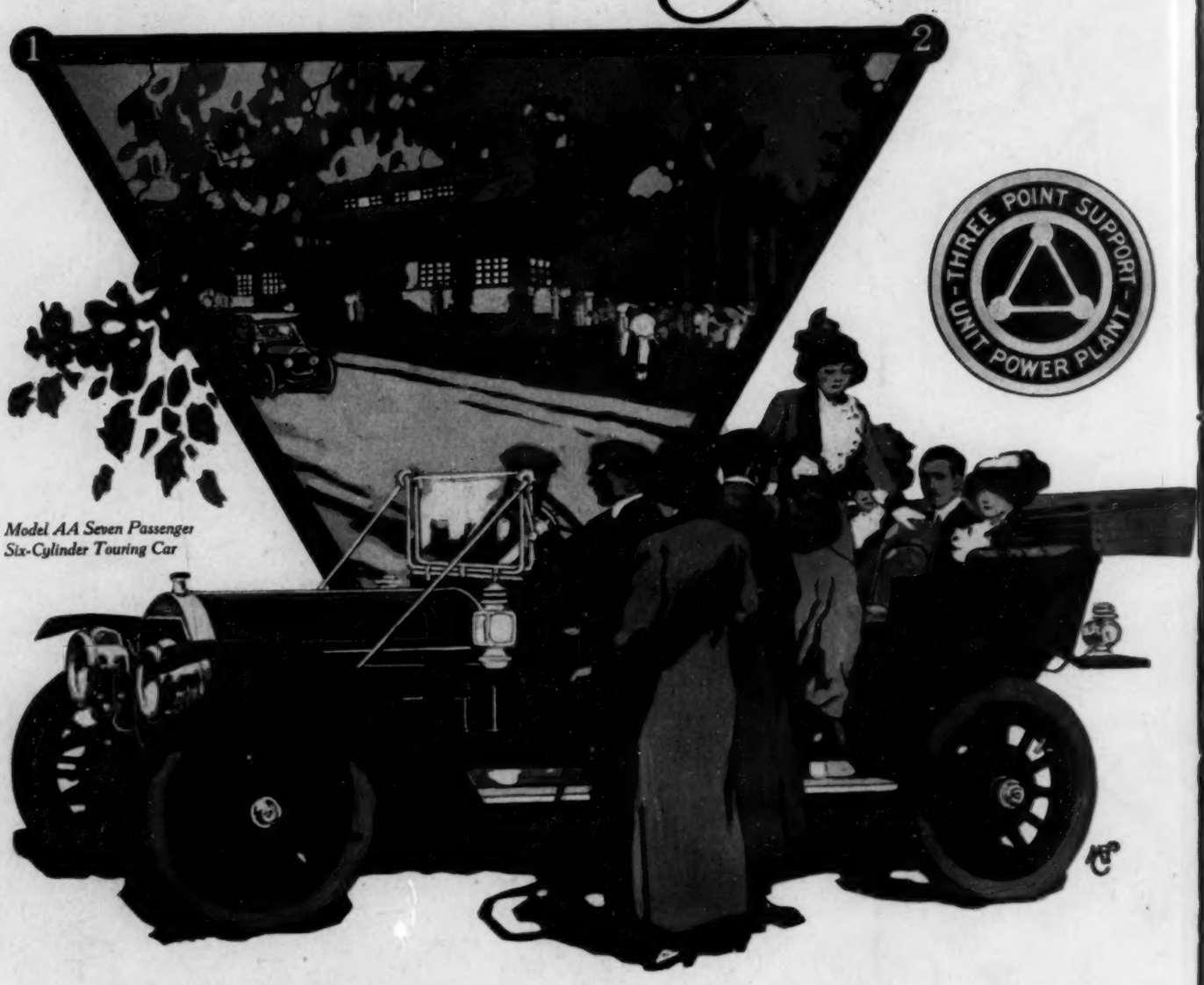
Richard D. Hoyt

# SPEEDWAY ENGINES

"High Prices, but Compensating Value"

**Gas Engine & Power Co. and Charles L. Seabury & Co.**
CONSOLIDATED
Morris Heights - New York City

# Stevens-Duryea




*Model AA Seven Passenger*
*Six-Cylinder Touring Car*

THE first successful American automobile was the "Duryea wagon"—the original Stevens-Duryea. The first marketable six-cylinder car was a Stevens-Duryea. The first car to show practically every important improvement in motor-car construction has been the Stevens-Duryea.

The Development of the Stevens-Duryea is coincident with the history of the American Motor Car

*Why the Stevens-Duryea has always maintained its leadership is convincingly set forth in our 1912 Art Catalog :: Our dealers will give demonstrations at your convenience*

STEVENS-DURYEA COMPANY, Chicopee Falls, Massachusetts

*Pioneer Builders of American Sixes*

THE NATION PRESS